

# Supplementary Material for

## **Marine litter disrupts ecological processes in reef systems**

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### **This PDF file includes:**

- **Supplementary Information** contains additional description and information on the study.
- **Supplementary Tables.**
- **Supplementary Figures.**
- **Supplementary References.**

### **Supplementary Information**

The records presented here highlight the importance of a multiple approach, combining marine fauna associated-ML records with photographic databases to contribute to a better understanding of this important problem.

By combining technological advances and the photographic databases of many divers, outdoor enthusiasts, amateur and professional photographers, and marine scientists who have shared their observations and interests through social networks, forums, and websites, new scientific discoveries can be publicized that will influence public opinion and behavior. One recent example of this is a video that received more

than 1.4 million views on social networks (published online by the Core Sea [<http://coresea.com/>] organization), showing a black-blotched porcupine fish, *Diodon liturosus*, being rescued after becoming entangled in an abandoned fishing net (Core Sea Organization, 2017, Supplemental References). Even more recently, the photographer Justin Hofman's image (Wildlife Photographer of the Year; Osterloff, 2017) became world famous by documented a small estuary seahorse, *Hippocampus kuda* Bleeker, 1852, swimming with a discarded plastic cotton swab on a reef near Sumbawa Island, Indonesia.

Previous studies have used similar tools and approaches to acquire biodiversity data through amateur and historical photographs, newspaper reports, social networks, and citizen-scientist participation (Gonella et al., 2015; Hidalgo-Ruz and Thiel, 2015, Hentati-Sundberg and Olsson, 2016; Thurstan et al., 2016).

This open approach has allowed us to integrate diverse sources of information and demonstrate that anthropogenic debris impacts may be much more common than previously thought (see, Supplemental Tables, Figures and References).

## Supplemental Tables

**Table S1:** Detailed description of the areas studied, methodologies, information sources\* and area code.

| Marine Region  | Location  | Methodology                   | Information source                                | Source/Reference                         | CODE |
|----------------|---|-------------------------------|---|--|------|
| Atlantic Ocean | Barra rocky shores, Todos os Santos Bay, Bahia, Northeast Brazil  | UVC                           | Underwater records (AGRRA/RDT)                    | Present work                             | 1A   |
| Atlantic Ocean | Canarias Island, Spain  | Citizen Science/ Social Media | Information provided by diver/newspaper           | Present work/BBC, 2017                   | 1B   |
| Atlantic Ocean | Chesapeake Bay, Virginia  | Literature review             | Study on the fishing gear impacts                 | Havens et al. 2011; Bilkovic et al. 2014 | 1C   |
| Atlantic Ocean | Florida Keys National Marine Sanctuary, southeastern Florida, USA | Literature review             | Study on the fishing gear impacts on coral reefs  | Chiappone et al., 2002; 2005             | 1D   |
| Atlantic Ocean | Gray's Reef National Marine Sanctuary, Southeast USA              | Literature review             | Study on the fishing gear impacts on hard bottom  | Bauer et al., 2008                       | 1E   |
| Atlantic Ocean | Itanhaém and Ubatuba, Sao Paulo, Brazil                           | Literature review             | Study on the plastic collars on sharks            | Sazima et al., 2002                      | 1F   |
| Atlantic Ocean | Jeffreys Ledge, Gulf of Maine, USA                                | Literature review             | Study on the impacts of ghost gillnets            | Carr, 1986                               | 1G   |
| Atlantic Ocean | Juno Beach and Singer Island, Palm Beach, Florida, USA            | Photographic Database         | Information obtained in the photographic database | OceanwideImages.com                      | 1H   |
| Atlantic Ocean | Lake Worth Lagoon, Palm Beach, Florida, USA                       | Photographic Database         | Information obtained in the photographic database | OceanwideImages.com                      | 1I   |
| Atlantic Ocean | La Caleta, Cádiz, Southwest, Spain                                | UVC                           | Underwater records (RDT)                          | Present work                             | 1J   |
| Atlantic Ocean | Morro de São Paulo Island, Bahia, Northeast Brazil                | UVC                           | Underwater records (RDT)                          | Present work                             | 1K   |
| Atlantic Ocean | Ponta Verde coral reefs,  | UVC                           | Underwater records (RDT)                          | Present work                             | 1L   |

|                |  |                       |  |  |    |
|----------------|--|-----------------------|--|--|----|
| Atlantic Ocean | Alagoas, Northeast Brazil<br>Ribeira, Todos os Santos Bay, Bahia, Northeast Brazil | Citizen science       | Information provided by diver                          | Present work                             | 1M |
| Atlantic Ocean | São Tomé Island, Gulf of Guinea, African coast                                     | UVC                   | Underwater records (RDT)                               | Present work                             | 1N |
| Atlantic Ocean | Several sites, Florida, USA  | Literature review     | Study on the entanglement in <i>Pristis pectinata</i>  | Seitz and Poulakis, 2006                 | 1O |
| Atlantic Ocean | Terceira Island, Azores, Portugal  | Literature review     | Study on the entanglement (plastic debris collar)      | Barreiros and Guerreiro, 2014            | 1P |
| Atlantic Ocean | Todos os Santos Bay, Bahia, Northeast Brazil                                       | Literature review     | Study on the entanglement (plastic debris collar)      | Nunes et al., 2017                       | 1Q |
| Atlantic Ocean | Faial-Pico Passage, Azores, Portugal   | Literature review     | Study on the fishing gear impacts on hard bottom       | Rodríguez and Pham, 2017                 | 1R |
| Atlantic Ocean | Southwest England  | Literature review     | Study on the entanglement in gorgonians                | Sheehan et al., 2017                     | 1S |
| Atlantic Ocean | Santa Catarina, Southern Brazil  | Literature review     | Study on the fishing gear impacts on rocky shores      | Adelir-Alves et al., 2016                | 1T |
| Atlantic Ocean | Arraial do Cabo, Southeastern Brazil   | Literature review     | Study on the damage in gorgonians                      | Cassola et al., 2016                     | 1U |
| Atlantic Ocean | Southwestern Portugal  | Literature review     | Study on the fishing gear impacts on red coral gardens | Boavida et al., 2016                     | 1V |
| Atlantic Ocean | rocky reefs, outcrops and bottom off the Algarve, Portugal                         | Literature review     | Study on the impacts of ghost fishing                  | Erzini et al., 1997; Erzini et al., 2008 | 1W |
| Atlantic Ocean | Tamandaré, Pernambuco, Brazil  | Literature review     | Study on the plastic debris and seahorse               | Marques and Barreiros, 2016              | 1X |
| Atlantic Ocean | West Florida slope, eastern Gulf of Mexico   | Literature review     | Study on the deep-sea coral and hardbottom habitats    | Ross et al., 2017                        | 1Y |
| Bali Sea       | Bali, Indonesia  | Photographic Database | Information obtained in the photographic database      | OceanwideImages.com                      | 2A |

|                   |   |                       |  |  |    |
|-------------------|---|-----------------------|--|--|----|
| Caribbean Sea     | San Andrés Island, Colombia   | Citizen science       | Information and image provided by diver                        | Present work                             | 3A |
| Caribbean Sea     | Indian Bay, Saint Vincent and The Grenadines                            | Photographic Database | Information obtained in the photographic database              | MarinePhotoBank.com                      | 3B |
| Caribbean Sea     | St. Thomas, US Virgin Islands   | Literature review     | Study on the impacts of ghost fishing                          | Renchen et al., 2014                     | 3C |
| Red Sea           | Hurghada, Egypt   | Photographic Database | Information obtained in the photographic database              | MarinePhotoBank.com                      | 4A |
| Indian Ocean      | Cape Ford, Australia  | Literature review     | Study on the Derelict Fishing Gear                             | Kiessling, 2003                          | 5A |
| Indian Ocean      | Damaniyat Islands, Oman, Gulf of Oman                                   | Photographic Database | Information obtained in the photographic database              | MarinePhotoBank.com                      | 5B |
| Indian Ocean      | Kuramathi Island, Maldives  | Literature review     | Study on the use of plastic debris as shelter by a hermit crab | Barreiros and Luis Jr., 2008             | 5C |
| Indian Ocean      | KwaZulu-Natal, South Africa   | Literature review     | Study on the plastic debris in sharks                          | Ryan and Laist, 1997; Cliff et al., 2002 | 5D |
| Indian Ocean      | Sultanate of Oman   | Literature review     | Study on the human impacts on coral reefs                      | Al-Jufaili et al., 1999                  | 5E |
| Indian Ocean      | Sodwana Bay, South Africa   | Literature review     | Study on the human impacts on coral reefs                      | Schleyer and Tomalin, 2000               | 5F |
| Indian Ocean      | Sumbawa Island, Indonesia   | Photographic Database | Information obtained in the photographic database              | Osterloff, 2017/National History Museum  | 5G |
| Mediterranean Sea | Chania, Messianikos Gulf, Monembasla, Oxia, Saronida, Zakynthos, Greece | Literature review     | Study on the refuges ecology octopuses                         | Katsanevakis and Verriopoulos, 2004      | 6A |
| Mediterranean Sea | Mallorca, Balearic Island, Spain  | Photographic Database | Information obtained in the photographic database              | Observadoresdelmar.es                    | 6B |
| Mediterranean Sea | Portofino Promontory, Ligurian Sea                                      | Literature review     | Study on the damage by fishing activities                      | Bavestrello et al., 1997                 | 6C |

|                   |   |                       |   |   |    |
|-------------------|---|-----------------------|---|---|----|
| Mediterranean Sea | Port-Cros National Park, France             | Literature review     | Study on the occurrence of a lost fishing net           | Houard et a., 2012  | 6D |
| Mediterranean Sea | Saronikos Gulf, Aegean Sea                  | Literature review     | Study on the effect marine debris                       | Katsanevakis et al., 2007                                 | 6E |
| Mediterranean Sea | Tyrrhenian Sea, Italy                       | Literature review     | Study on the distribution of marine debris              | Bo et al., 2013; Bo et al., 2014; Angiolillo et al., 2015 | 6F |
| Mediterranean Sea | Marina del Este Beach, Granada, Spain       | Literature review     | Entanglement in <i>Astroides calycularis</i>            | Terrón-Sigler, 2015a                                      | 6G |
| Mediterranean Sea | Punta de la Mona, Spain                     | Literature review     | Study on the entanglement in <i>Dendrophyllia ramea</i> | Terrón-Sigler et al., 2015b                               | 6H |
| Mediterranean Sea | Punta Campanella, Gulf of Naples, Italy     | Literature review     | Study on the fishing gear impacts in gorgonians         | Sbrescia et al., 2008                                     | 6I |
| Mediterranean Sea | La Fonera, Northwestern Mediterranean Sea   | Literature review     | Study on the human impacts on cold-water corals         | Lastras et al., 2016                                      | 6J |
| Mediterranean Sea | Nora canyon, Sardinia                       | Literature review     | Study on the human impacts on cold-water corals         | Taviani et al., 2017                                      | 6K |
| Mediterranean Sea | Strait of Sicily, central Mediterranean Sea | Literature review     | Study on the marine litter in marine habitats           | Consoli et al., 2018                                      | 6L |
| Pacific Ocean     | Ambon Island, Indonesia                     | Photographic Database | Information obtained in the photographic database       | Diverosa.com  | 7A |
| Pacific Ocean     | Anilao, Luzon, Philippines                  | Photographic Database | Information obtained in the photographic database       | MarinePhotoBank.com                                       | 7B |
| Pacific Ocean     | Bodega Bay, California, USA                 | Photographic Database | Information obtained in the photographic database       | MarinePhotoBank.com                                       | 7C |

|               |   |   |   |  |    |
|---------------|---|---|---|--|----|
| Pacific Ocean | British Columbia, Canada                                  | Literature review                       | Study on the Derelict Fishing Gear  | Breen, 1990  | 7D |
| Pacific Ocean | Cape Arnhem, Australia                                    | Literature review                       | Study on the Derelict Fishing Gear  | Kiessling, 2003  | 7E |
| Pacific Ocean | Chaloklum, Thailand                                       | Social media                            | Information obtained in the social media  | CoreSea.com  | 7F |
| Pacific Ocean | Lembeh Strait, Sulawesi, Indonesia                        | Photographic Database                   | Information obtained in the photographic database   | Diverosa.com;<br>OceanwideImages.com;<br>TonyWublog.com        | 7G |
| Pacific Ocean | Majuro Atoll, Marshall Islands                            | Literature review                       | Study on the macro-debris its effects on hard coral                                       | Richards and Beger, 2011                                       | 7H |
| Pacific Ocean | Maui, Oahu, Hawaii, USA                                   | Literature review                       | Study on the damage by fishing activities   | Asoh et al., 2004  | 7I |
| Pacific Ocean | Milne Bay Province, Papua New Guinea                      | Photographic Database                   | Information obtained in the photographic database   | TonyWublog.com   | 7J |
| Pacific Ocean | Negros Island, Philippines                                | Photographic Database                   | Information obtained in the photographic database   | Diverosa.com   | 7K |
| Pacific Ocean | New South Wales, Australia                                | Literature review/Photographic Database | Study on the impacts on nearshore reefs/Information obtained in the photographic database | Smith et al., 2008/INaturalist.org/Bray, 2011                  | 7L |
| Pacific Ocean | Numazu-shi, Shizuoka, Japan                               | Photographic Database                   | Information obtained in the photographic database and Fishes of Australia                 | OceanwideImages.com/ Bray, 2011                                | 7M |
| Pacific Ocean | Pearl and Hermes Atol, Northwestern Hawaiian Islands, USA | Literature review                       | Study on the Derelict Fishing Gear  | Donohue et al., 2001   | 7N |
| Pacific Ocean | Puget Sound and the Northwest Straits, USA                | Literature review                       | Study on the diet of octopus; Study on the mortality in derelict fishing nets             | Anderson et al., 1999; Gilardi et al., 2010; Good et al., 2010 | 7O |
| Pacific Ocean | Pipeline, Port Stephens,                                  | Literature review                       | Study on the density of subtidal  | Smith and Edgar,   | 7P |

|               |                               |                       |   |   |    |
|---------------|-------------------------------|-----------------------|---|---|----|
| Pacific Ocean | Australia                     |                       | marine debris   | 2014                                    |    |
| Pacific Ocean | Southern Leyte, Philippines   | Photographic Database | Information obtained in the photographic database               | MarinePhotoBank.com                     | 7Q |
| Pacific Ocean | Tanguisson, Guam, Micronesia  | Photographic Database | Information obtained in the photographic database               | MarinePhotoBank.com                     | 7R |
| Pacific Ocean | Manabi, Ecuador               | Literature review     | Study on the characterization of marine debris                  | Figuerola-Pico et al., 2016             | 7S |
| Pacific Ocean | Aleutian Islands, Alaska, USA | Literature review     | Study on the damage and disturbance to coral and sponge habitat | Heifetz et al., 2009                    | 7T |
| Pacific Ocean | Sumbawa Island, Indonesia     | Photographic Database | Information obtained in the photographic database               | Osterloff, 2017/National History Museum | 7U |

\* Core Sea Organization; DiveRosa; INaturalist; Marine Photobank, ObservadoresdelMar; Oceanwideimages; Okinawanaturephotography; TonyWublog accessed between February and December 2016; Osterloff, 2017/National History Museum accessed October 2017.

**Table S2:** Compiled list on the associations of ML by biota ordered taxonomically. Details about the biota, IUCN Red List Categories\*, number of records, type of associated items, type of interaction\*\*, Information source<sup>#</sup>, location of the works and records (Area Code), and references<sup>+</sup> were detailed.

| Taxa   | IUCN | N | Type of items                            | Type of interaction | Location | Source | Description/Reference                   |
|--|------|---|--|---------------------|----------|--------|---|
| <b>Porifera</b>  |      |   |  |                     |          |        |   |
| <i>Aphrocallistes vastus</i> Schulze, 1886                 | NE   | 5 | derelict fishing nets                    | entanglement        | 7O       | LR     | Good et al., 2010                       |
| <i>Aplysina cavernicola</i> (Vacelet, 1959)                | NE   | - | fishing gear                             | covering/substrate  | 6F       | LR     | Angiolillo et al., 2015                 |
| <i>Aplysina insularis</i> (Duchassaing & Michelotti, 1864) | NE   | 1 | fishing gear                             | entanglement        | 1A       | UVC    | Present work                            |
| <i>Callyspongia</i> sp.                                    | NE   | 3 | fishing gear                             | entanglement        | 1A       | UVC    | Present work                            |
| <i>Chondrilla nucula</i> Schmidt, 1862 (complex)           | NE   | 1 | fishing gear, plastic bootle, glass jars | covering/substrate  | 1A/6E    | UVC/LR | Present work: Katsanevakis et al., 2007 |
| <i>Craniella villosa</i> Lambe, 1893                       | NE   | 9 | derelict fishing nets                    | entanglement        | 7O       | LR     | Good et al., 2010                       |



|   |    |     |                        |                        |       |     |  |
|---|----|-----|------------------------|------------------------|-------|-----|--|
| <i>Desmapsamma anchorata</i> (Carter, 1882)             | NE | 5   | fishing gear / plastic | entanglement/substrate | 1A    | UVC | Present work   |
| Demospongeae  | NE | 52  | fishing gear           | entanglement           | 1D/7  | LR  | Chiappone et al., 2002; 2005; Heifetz et al., 2009             |
| <i>Poecillastra compressa</i> (Bowerbank, 1866)         | NE | -   | fishing gear           | covering/substrate     | 6F    | LR  | Angiolillo et al., 2015  |
| <i>Pseudotrachya hystrix</i> (Topsent, 1890)            | NE | -   | fishing lines          | entanglement           | 1R    | LR  | Rodríguez and Pham, 2017                                       |
| <i>Raspailia (Raspailia) viminalis</i> Schmidt, 1862    | NE | -   | fishing gear           | entanglement/damage    | 6L    | LR  | Consoli et al., 2018   |
| <i>Reniera</i> sp.                                      | NE | -   | fishing gear           | substrate              | 6J    | LR  | Lastras et al., 2016   |
| <i>Suberites suberia</i> (Montagu, 1814)                | NE | 2   | derelict fishing nets  | entanglement           | 7O    | LR  | Good et al., 2010  |
| <b>Cnidaria</b>   |    |     |                        |                        |       |     |  |
| <i>Abietinaria greenei</i> (Murray, 1860)               | NE | 396 | derelict fishing nets  | entanglement           | 7O    | LR  | Good et al., 2010  |
| <i>Acanthogorgia hirsuta</i> Gray, 1857                 | NE | -   | fishing gear           | covering               | 6F/6L | LR  | Angiolillo et al., 2015; Consoli et al., 2018                  |
| <i>Acropora clathrata</i> (Brook, 1891)                 | LC | -   | fishing gear           | entanglement           | 5F    | LR  | Schleyer and Tomalin, 2000                                     |
| <i>Acropora hyacinthus</i> (Dana, 1846)                 | NT | -   | fishing gear           | entanglement           | 5F    | LR  | Schleyer and Tomalin, 2000                                     |
| <i>Acropora</i> spp.                                    | NE | -   | fishing gear           | entanglement/covering  | 5E    | LR  | Al-Jufaili et al., 1999  |
| <i>Alcyonium acaule</i> Marion, 1878                    | NE | -   | fishing gear           | substrate              | 6F    | LR  | Angiolillo et al., 2015  |
| <i>Alcyonium coralloides</i> (Pallas, 1766)             | NE | -   | fishing gear           | substrate              | 6F    | LR  | Angiolillo et al., 2015  |
| <i>Alcyonium palmatum</i> Pallas, 1766                  | NE | -   | fishing gear           | substrate              | 6F    | LR  | Angiolillo et al., 2015  |
| <i>Anthomastus</i> sp.                                  | NE | -   | fishing gear           | entanglement           | 7T    | LR  | Heifetz et al., 2009   |
| <i>Antipathella subpinnata</i> (Ellis & Solander, 1896) | NE | -   | fishing gear           | covering               | 6F/6L | LR  | Angiolillo et al., 2015; Consoli et al., 2018                  |
| <i>Antipathes dichotoma</i> Pallas, 1766                | NE | -   | fishing gear           | entanglement/covering  | 6F/6L | LR  | Bo et al., 2014; Angiolillo et al., 2015; Consoli et al., 2018 |
| <i>Astroides calycularis</i> (Pallas, 1766)             | NE | -   | fishing gear           | entanglement           | 6G    | LR  | Terrón-Sigler, 2015a   |
| <i>Bebryce mollis</i> Philippi, 1842                    | NE | -   | fishing gear           | covering               | 6F/6L | LR  | Angiolillo et al., 2015; Consoli et al., 2018                  |

|   |    |    |                  |                       |          |    |   |
|---|----|----|------------------|-----------------------|----------|----|---|
| <i>Callogorgia verticillata</i> (Pallas, 1766)                        | NE | -  | fishing gear     | entanglement/covering | 6F/6L    | LR | Bo et al., 2013;<br>Angiolillo et al., 2015;<br>Consoli et al., 2018      |
| <i>Caryophyllia</i> sp.   | NE | -  | fishing lines    | entanglement          | 1R       | LR | Rodríguez and Pham,<br>2017   |
| Ceriantharia  | NE | -  | fishing gear     | covering              | 6F       | LR | Angiolillo et al., 2015   |
| <i>Chironephthya mediterranea</i> López-González, Grinyó & Gili, 2014 | NE | -  | fishing gear     | covering              | 6F       | LR | Angiolillo et al., 2015   |
| <i>Clavularia</i> sp.   | NE | -  | fishing gear     | entanglement          | 7T       | LR | Heifetz et al., 2009  |
| <i>Corallium rubrum</i> (Linnaeus, 1758)                              | NE | -  | fishing gear     | covering/entanglement | 6F/1V/6L | LR | Angiolillo et al., 2015;<br>Boavida et al., 2016;<br>Consoli et al., 2018 |
| <i>Dendronephthya australis</i> Kükenthal, 1905                       | NE | 1  | fishing gear     | entanglement          | 7P       | LR | Smith and Edgar, 2014   |
| <i>Dendrophyllia cornigera</i> (Lamarck, 1816)                        | NE | -  | fishing gear     | entanglement/covering | 6F       | LR | Bo et al., 2014;<br>Angiolillo et al., 2015                               |
| <i>Dendrophyllia ramea</i> (Linnaeus, 1758)                           | NE | 31 | fishing gear     | entanglement          | 6H       | LR | Terrón-Sigler et al., 2015b   |
| <i>Desmophyllum dianthus</i> (Esper, 1794)                            | NE | -  | abandoned barrel | substrate             | 6K       | LR | Taviani et al., 2017  |
| <i>Desmophyllum pertusum</i> (Linnaeus, 1758)                         | NE | -  | fishing gear     | entanglement          | 1Y       | LR | Ross et al., 2017   |
| <i>Errina dabneyi</i> (Pourtalès, 1871)                               | NE | -  | fishing lines    | entanglement          | 1R       | LR | Rodríguez and Pham,<br>2017   |
| <i>Eunicella cavolinii</i> (Koch, 1887)                               | NE | -  | fishing gear     | entanglement/covering | 6F/6L    | LR | Bo et al., 2014;<br>Angiolillo et al., 2015;<br>Consoli et al., 2018      |
| <i>Eunicella singularis</i> (Esper, 1791)                             | NE | -  | fishing gear     | entanglement          | 6I/6L    | LR | Sbrescia et al., 2008;<br>Consoli et al., 2018                            |
| <i>Eunicella verrucosa</i> (Pallas, 1766)                             | VU | -  | fishing gear     | entanglement/covering | 6F/1S/6L | LR | Angiolillo et al., 2015;<br>Sheehan et al., 2017;<br>Consoli et al., 2018 |
| Hydrozoa  | NE | -  | fishing lines    | entanglement          | 1R       | LR | Rodríguez and Pham,<br>2017   |
| Isididae  | NE | -  | fishing gear     | entanglement          | 7T       | LR | Heifetz et al., 2009  |
| <i>Leiopathes glaberrima</i> (Esper, 1792)                            | NE | -  | fishing gear     | entanglement/covering | 6F/6L    | LR | Bo et al., 2013; Bo et al.,   |

2014; Angiolillo et al.,  
2015; Consoli et al., 2018

|  |    |     |                        |                                 |          |        |   |
|--|----|-----|------------------------|---------------------------------|----------|--------|---|
| <i>Palythoa caribaeorum</i> (Duchassaing & Michelotti, 1860) | NE | 10  | fishing gear / plastic | entanglement/covering           | 1A       | UVC    | Present work  |
| <i>Palythoa mammillosa</i> (Ellis & Solander, 1786)          | NE | 22  | fishing gear           | entanglement                    | 1D       | LR     | Chiappone et al., 2002;<br>2005   |
| <i>Palythoa cf. variabilis</i>                               | NE | 5   | fishing gear / plastic | entanglement/covering           | 1A       | UVC    | Present work  |
| <i>Palythoa sp.</i>  | NE | 1   | fishing gear           | entanglement/covering           | 1A       | UVC    | Present work  |
| <i>Paragorgia arborea</i> (Linnaeus, 1758)                   | NE | -   | fishing gear           | entanglement                    | 7T       | LR     | Heifetz et al., 2009  |
| <i>Paramuricea clavata</i> (Risso, 1826)                     | NE | -   | fishing gear           | entanglement/covering           | 6C/6F/6L | LR     | Bavestrello et al., 1997;<br>Bo et al., 2014;<br>Angiolillo et al., 2015;<br>Consoli et al., 2018 |
| <i>Paramuricea macrospina</i> (Koch, 1882)                   | DD | -   | fishing gear           | covering                        | 6F/6L    | LR     | Angiolillo et al., 2015;<br>Consoli et al., 2018  |
| <i>Parantipathes larix</i> (Esper, 1788)                     | NE | -   | fishing gear           | entanglement/covering           | 6L       | LR     | Consoli et al., 2018  |
| <i>Pavona clavus</i> (Dana, 1846)                            | LC | -   | fishing gear           | entanglement                    | 7S       | LR     | Figueroa-Pico et al., 2016  |
| <i>Phyllogorgia dilatata</i> (Esper, 1806)                   | NE | 152 | fishing lines          | entanglement                    | 1U       | LR     | Cassola et al., 2016  |
| <i>Pocillopora damicornis</i> (Linnaeus, 1758)               | LC | -   | fishing gear           | entanglement/covering           | 5E/7L    | LR     | Al-Jufaili et al., 1999;<br>Smith et al., 2008  |
| <i>Pocillopora meandrina</i> Dana, 1846                      | LC | -   | fishing gear           | entanglement                    | 7I       | LR     | Asoh et al., 2004   |
| <i>Pocillopora spp.</i>                                      | NE | 1   | fishing gear           | entanglement                    | 7R/7S    | PD/LR  | Present work; Figueroa-Pico et al., 2016  |
| <i>Madrepora oculata</i> Linnaeus 1758                       | NE | -   | fishing gear/plastic   | substrate/entanglement/covering | 6J/6K    | LR     | Lastras et al., 2016;<br>Taviani et al., 2017   |
| <i>Millepora alcicornis</i> Linnaeus 1758                    | LC | 63  | fishing gear / cloth   | entanglement/covering           | 1A/1D    | UVC/LR | Present work; Chiappone et al., 2002; 2005  |
| <i>Millepora complanata</i> Lamarck 1816                     | LC | 26  | fishing gear           | entanglement                    | 1D       | LR     | Chiappone et al., 2005  |
| <i>Millepora nitida</i> Verrill 1868                         | DD | 20  | fishing gear           | entanglement/covering           | 1A       | UVC    | Present work  |
| <i>Montastraea cavernosa</i> (Linnaeus, 1766)                | LC | 5   | fishing gear           | entanglement/covering           | 1A       | UVC    | Present work  |
| <i>Neospongodes atlantica</i> Kükenthal, 1903                | NE | 2   | fishing gear / plastic | entanglement/substrate          | 1A       | UVC    | Present work  |

|   |    |      |                               |                       |       |     |   |
|---|----|------|-------------------------------|-----------------------|-------|-----|---|
| Octocorallia  | NE | 194  | fishing gear                  | entanglement          | 1D    | LR  | Chiappone et al., 2002; 2005                  |
| <i>Oculina sp.</i>                                    | NE | -    | fishing gear                  | entanglement          | 1E    | LR  | Bauer et al., 2008                            |
| <i>Porites rus</i> Forskål, 1775                      | LC | -    | macro-debris                  | covering              | 7H    | LR  | Richards and Beger, 2011                      |
| <i>Savalia savaglia</i> (Bertolini, 1819)             | NE | -    | fishing gear                  | entanglement/covering | 6F/6L | LR  | Angiolillo et al., 2015; Consoli et al., 2018 |
| Scleractinia  | NE | 33   | fishing gear                  | entanglement          | 1D    | LR  | Chiappone et al., 2002; 2005                  |
| <i>Siderastrea spp.</i>                               | NE | 10   | fishing gear                  | entanglement          | 1A    | UVC | Present work                                  |
| <i>Stylophora pistillata</i> Esper, 1797              | NT | -    | fishing gear                  | entanglement/covering | 5E    | LR  | Al-Jufaili et al., 1999                       |
| <i>Viminella flagellum</i> (Johnson, 1863)            | NE | -    | fishing gear                  | entanglement/covering | 6F/6L | LR  | Angiolillo et al., 2015; Consoli et al., 2018 |
| <i>Zoanthus cf. sociatus</i> (Ellis & Solander, 1786) | NE | 1    | fishing gear                  | entanglement/covering | 1A    | UVC | Present work                                  |
| Platyhelminthes                                       |    |      |                               |                       |       |     |   |
| <i>Pherecardia striata</i> (Kinberg, 1857)            | NE | 1    | fishing gear                  | refuge/substrate      | 7N    | LR  | Donohue et al., 2001                          |
| Mollusca  |    |      |                               |                       |       |     |   |
| <i>Acanthodoris hudsoni</i> MacFarland, 1905          | NE | 1    | derelict fishing nets         | entanglement          | 7O    | LR  | Good et al., 2010                             |
| <i>Amphioctopus burryi</i> (Voss, 1950)               | NE | 3    | metal                         | refuge                | 1A/1N | UVC | Present work                                  |
| <i>Amphioctopus marginatus</i> (Taki, 1964)           | NE | 7    | metal, glass pot, plastic cup | refuge                | 7B/7G | PD  | Present work                                  |
| <i>Cadlina luteomarginata</i> MacFarland, 1966        | NE | 7    | derelict fishing nets         | entanglement          | 7O    | LR  | Good et al., 2010                             |
| <i>Ceratostoma foliatum</i> (Gmelin, 1791)            | NE | 438  | derelict fishing nets         | entanglement          | 7O    | LR  | Good et al., 2010                             |
| Cirripedia indet.                                     | NE | 63   | plastic                       | substrate             | 1A    | UVC | Present work                                  |
| <i>Charonia lampas</i> (Linnaeus, 1758)               | NE | 3    | gill and trammel nets         | catches in DFG        | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>              |
| <i>Chlamys rubida</i> (Hinds, 1845)                   | NE | 4411 | derelict fishing nets         | entanglement          | 7O    | LR  | Good et al., 2010                             |
| <i>Clinocardium nuttallii</i> (Conrad, 1837)          | NE | 317  | derelict fishing nets         | entanglement          | 7O    | LR  | Good et al., 2010                             |
| <i>Crassadoma gigantea</i> (J.E. Gray, 1825)          | NE | 47   | derelict fishing nets         | entanglement          | 7O    | LR  | Good et al., 2010                             |
| <i>Crassostrea gigas</i> (Thunberg, 1793)             | NE | 2    | derelict fishing nets         | entanglement          | 7O    | LR  | Good et al., 2010                             |

|  |    |      |   |                       |          |     |  |
|--|----|------|---|-----------------------|----------|-----|--|
| <i>Cryptochiton stelleri</i> (von Middendorff, 1847)             | NE | 93   | derelict fishing nets   | entanglement          | 7O       | LR  | Good et al., 2010  |
| <i>Cymbium olla</i> (Linnaeus, 1758)                             | NE | 1    | trammel nets  | catches in DFG        | 1W       | LR  | Erzini et al., 1997 <sup>+</sup>   |
| <i>Fusitriton oregonensis</i> (Redfield, 1846)                   | NE | 783  | derelict fishing nets   | entanglement          | 7O       | LR  | Good et al., 2010  |
| <i>Enteroctopus dofleini</i> (Wülker, 1910)                      | NE | 1    | derelict fishing nets   | entanglement          | 7O       | LR  | Good et al., 2010  |
| <i>Haliotis kamtschatkana</i> Jonas, 1845                        | EN | 9    | derelict fishing nets   | entanglement          | 7O       | LR  | Gilardi et al., 2010; Good et al., 2010  |
| <i>Hexaplex trunculus</i> (Linnaeus, 1758)                       | NE | -    | plastic bottles, glass jars   | refuge                | 6E       | LR  | Katsanevakis et al., 2007  |
| <i>Ischnochiton</i> sp.  | NE | 16   | plastic   | substrate             | 1A       | UVC | Present work   |
| <i>Leukoma staminea</i> (Conrad, 1837)                           | NE | 1185 | derelict fishing nets   | entanglement          | 7O       | LR  | Good et al., 2010  |
| <i>Macoma nasuta</i> (Conrad, 1837)                              | NE | 8    | derelict fishing nets   | entanglement          | 7O       | LR  | Good et al., 2010  |
| <i>Macrotritopus defilippi</i> (Vérany, 1851)                    | NE | 1    | soda can  | substrate             | 1I       | PD  | Present work   |
| <i>Mya truncata</i> Linnaeus, 1758                               | NE | 79   | derelict fishing nets   | entanglement          | 7O       | LR  | Good et al., 2010  |
| <i>Mytilus trossulus</i> Gould, 1850                             | NE | 385  | derelict fishing nets   | entanglement          | 7O       | LR  | Good et al., 2010  |
| <i>Neopycnodonte cochlear</i> (Poli, 1795)                       | NE | -    | fishing gear  | substrate             | 6J       | LR  | Lastras et al., 2016   |
| <i>Neverita lewisii</i> (Gould, 1847)                            | NE | 1    | derelict fishing nets   | entanglement          | 7O       | LR  | Good et al., 2010  |
| <i>Octopus insularis</i> Leite, Haimovici, Molina & Warnke, 2008 | NE | 1    | glass pot   | refuge/breeding       | 1A       | UVC | Present work   |
| <i>Octopus rubescens</i> Berry, 1953                             | NE | -    | glass bottle  | refuge                | 7O       | LR  | Anderson et al., 1999  |
| <i>Octopus</i> sp.   | NE | 1    | glass bottle  | refuge                | 7G       | PD  | Present work   |
| <i>Octopus vulgaris</i> Cuvier, 1797                             | NE | 344  | several plastic, metal and glass objects, bottle, cup, pipe, plate, ceramic pot, tyre | refuge/catches in DFG | 6A/1R/1W | LR  | Katsanevakis and Verriopoulos, 2004; Erzini et al., 2008 <sup>+</sup> ; Rodríguez and Pham, 2017 |
| Octopoda   | NE | 2    | glass bottle, plastic   | refuge                | 6B/7B    | PD  | Present work   |
| <i>Panopea abrupta</i> (Conrad, 1849)                            | NE | 172  | derelict fishing nets   | entanglement          | 7O       | LR  | Good et al., 2010  |
| <i>Pododesmus macrochisma</i> (Deshayes, 1839)                   | NE | 130  | derelict fishing nets   | entanglement          | 7O       | LR  | Good et al., 2010  |

|   |    |      |                             |                  |    |     |   |
|---|----|------|-----------------------------|------------------|----|-----|---|
| <i>Saxidomus gigantea</i> (Deshayes, 1839)              | NE | 4205 | derelict fishing nets       | entanglement     | 7O | LR  | Good et al., 2010                       |
| <i>Sepia officinalis</i> Linnaeus, 1758                 | LC | 2    | trammel nets                | catches in DFG   | 1W | LR  | Erzini et al., 1997 <sup>+</sup>        |
| Sepiida   | NE | 1    | plastic bottle              | refuge           | 7T | PD  | Present work                            |
| <i>Tellina spp.</i>                                     | NE | 2    | derelict fishing nets       | entanglement     | 7O | LR  | Good et al., 2010                       |
| <i>Terebratalia transversa</i> (Sowerby, 1846)          | NE | 347  | derelict fishing nets       | entanglement     | 7O | LR  | Good et al., 2010                       |
| <i>Triopha catalinae</i> (Cooper, 1863)                 | NE | 23   | derelict fishing nets       | entanglement     | 7O | LR  | Good et al., 2010                       |
| <i>Venerupis philippinarum</i> (A. Adams & Reeve, 1850) | NE | 29   | derelict fishing nets       | entanglement     | 7O | LR  | Good et al., 2010                       |
| <b>Annelida - Polychaetes</b>                           |    |      |                             |                  |    |     |   |
| <i>Protula sp.</i>                                      | NE | -    | metal cans, pots, sacks     | substrate        | 6F | LR  | Angiolillo et al., 2015                 |
| <i>Sabella pavonina</i> Savigny, 1822                   | NE | -    | fishing gear                | substrate        | 6J | LR  | Lastras et al., 2016                    |
| <i>Sabella sp.</i>                                      | NE | -    | metal cans, pots, sacks     | substrate        | 6F | LR  | Angiolillo et al., 2015                 |
| <i>Spirobranchus giganteus</i> (Pallas, 1766)           | NE | 1    | fishing gear                | entanglement     | 1A | UVC | Present work                            |
| <i>Vermiliopsis sp.</i>                                 | NE | -    | fishing gear                | substrate        | 6J | LR  | Lastras et al., 2016                    |
| <b>Annelida - Sipunculids</b>                           |    |      |                             |                  |    |     |   |
| <i>Sipunculid spp.</i>                                  | NE | 1    | fishing gear                | refuge/substrate | 7N | LR  | Donohue et al., 2001                    |
| <b>Arthropoda - Crustaceans</b>                         |    |      |                             |                  |    |     |   |
| <i>Acantholithodes hispidus</i> (Stimpson, 1860)        | NE | 7    | derelict fishing nets       | entanglement     | 7O | LR  | Good et al., 2010                       |
| <i>Balanus nubilus</i> Darwin, 1854                     | NE | 7205 | derelict fishing nets       | entanglement     | 7O | LR  | Good et al., 2010                       |
| <i>Calliactis polypus</i> (Forskål, 1775)               | NE | 1    | fishing gear                | refuge/substrate | 7N | LR  | Donohue et al., 2001                    |
| <i>Cancer borealis</i> Stimpson, 1859                   | NE | 1    | ghost gillnet               | entanglement     | 1G | LR  | Carr, 1986                              |
| <i>Cancer productus</i> Randall, 1840                   | NE | 2348 | derelict fishing nets       | entanglement     | 7O | LR  | Gilardi et al., 2010; Good et al., 2010 |
| <i>Carpilius convexus</i> (Forskål, 1775)               | NE | 1    | fishing gear                | refuge/substrate | 7N | LR  | Donohue et al., 2001                    |
| <i>Carupa tenuipes</i> Dana, 1852                       | NE | 1    | fishing gear                | refuge/substrate | 7N | LR  | Donohue et al., 2001                    |
| <i>Cestopagurus timidus</i> (Roux, 1830)                | NE | -    | plastic bottles, glass jars | refuge           | 6E | LR  | Katsanevakis et al., 2007               |
| <i>Chionoecetes spp.</i>                                | NE | 1    | derelict fishing nets       | entanglement     | 7O | LR  | Good et al., 2010                       |

|   |    |      |                                    |                             |       |     |   |
|---|----|------|------------------------------------|-----------------------------|-------|-----|---|
| <i>Chorilia longipes</i> Dana, 1852               | NE | 1031 | derelict fishing nets              | entanglement                | 7O    | LR  | Good et al., 2010                                     |
| <i>Chthamalus stellatus</i> (Poli, 1791)          | NE | -    | plastic bottles, glass jars        | refuge                      | 6E    | LR  | Katsanevakis et al., 2007                             |
| <i>Clibanarius</i> sp.                            | NE | 2    | plastic                            | "mobile home"               | 1A    | UVC | Present work  |
| <i>Cryptolithodes typicus</i> Brandt, 1848        | NE | 2    | derelict fishing nets              | entanglement                | 7O    | LR  | Good et al., 2010                                     |
| <i>Cronius ruber</i> (Lamarck, 1818)              | NE | 4    | derelict gillnets                  | entanglement                | 1T    | LR  | Adelir-Alves et al., 2016                             |
| <i>Damithrax hispidus</i> (Herbst, 1790)          | NE | 5    | derelict gillnets                  | entanglement                | 1T    | LR  | Adelir-Alves et al., 2016                             |
| <i>Dardanus gemmatus</i> (H. Milne Edwards, 1848) | NE | 1    | fishing gear                       | refuge/substrate            | 7N    | LR  | Donohue et al., 2001                                  |
| Diogenidae  | NE | 1    | plastic box                        | "mobile home"               | 5C    | LR  | Barreiros and Luis Jr., 2008                          |
| <i>Enoplometus occidentalis</i> (Randall, 1840)   | LC | 1    | fishing gear                       | refuge/substrate            | 7N    | LR  | Donohue et al., 2001                                  |
| <i>Eualus avinus</i> (M. J. Rathbun, 1899)        | NE | 1    | derelict fishing nets              | entanglement                | 7O    | LR  | Gilardi et al., 2010                                  |
| <i>Galathea strigosa</i> (Linnaeus, 1761)         | NE | 1    | gill nets                          | catches in DFG              | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>                      |
| <i>Glebocarcinus oregonensis</i> (Dana, 1852)     | NE | 5    | derelict fishing nets              | entanglement                | 7O    | LR  | Good et al., 2010                                     |
| <i>Gnathophyllum precipuum</i> Titgen, 1989       | NE | 1    | fishing gear                       | refuge/substrate            | 7N    | LR  | Donohue et al., 2001                                  |
| <i>Hapalogaster mertensii</i> Brandt, 1850        | NE | 1    | derelict fishing nets              | entanglement                | 7O    | LR  | Good et al., 2010                                     |
| <i>Hemigrapsus nudus</i> (Dana, 1851)             | NE | 2    | derelict fishing nets              | entanglement                | 7O    | LR  | Good et al., 2010                                     |
| <i>Liomera supernodosa</i> (Rathbun, 1906)        | NE | 1    | fishing gear                       | refuge/substrate            | 7N    | LR  | Donohue et al., 2001                                  |
| <i>Lopholithodes foraminatus</i> (Stimpson, 1859) | NE | 1    | derelict fishing nets              | entanglement                | 7O    | LR  | Good et al., 2010                                     |
| <i>Lopholithodes mandtii</i> Brandt, 1848         | NE | 101  | derelict fishing nets              | entanglement                | 7O    | LR  | Gilardi et al., 2010; Good et al., 2010               |
| <i>Macropipus puber</i> (Linnaeus, 1767)          | NE | 2    | gill nets                          | catches in DFG              | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>                      |
| <i>Maja squinado</i> (Herbst, 1788)               | NE | 13   | fishing nets/gill and trammel nets | entanglement/catches in DFG | 6D/1W | LR  | Houard et al., 2012; Erzini et al., 1997 <sup>+</sup> |
| <i>Menippe nodifrons</i> Stimpson, 1859           | NE | 5    | derelict gillnets                  | entanglement                | 1T    | LR  | Adelir-Alves et al., 2016                             |
| <i>Metacarcinus gracilis</i> (Dana, 1852)         | NE | 4    | derelict fishing nets              | entanglement                | 7O    | LR  | Good et al., 2010                                     |
| <i>Metacarcinus magister</i> (Dana, 1852)         | NE | 2065 | derelict fishing nets              | entanglement                | 7O    | LR  | Gilardi et al., 2010; Good et al., 2010               |

|  |    |     |                               |                       |    |     |   |
|--|----|-----|-------------------------------|-----------------------|----|-----|---|
| <i>Munida quadrispina</i> J. E. Benedict, 1902     | NE | 1   | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Oedignathus inermis</i> (Stimpson, 1860)        | NE | 1   | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Pacifastacus leniusculus</i> (Dana, 1852)       | LC | 1   | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Pagurus armatus</i> (Dana, 1851)                | NE | 1   | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Pagurus hirsutiusculus</i> (Dana, 1851)         | NE | 1   | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Pagurus spp.</i>                                | NE | 9   | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Paguridae</i>                                   | NE | 1   | derelict fishing nets         | entanglement          | 7O | LR  | Gilardi et al., 2010                    |
| <i>Paguroidea</i>                                  | NE | 2   | broken glass bottle and metal | "mobile home"         | 7Q | PD  | Present work                            |
| <i>Palaemon sp.</i>                                | NE | 1   | car tyres                     | refuge                | 1A | UVC | Present work                            |
| <i>Palaemoninae spp.</i>                           | NE | 1   | fishing gear                  | refuge/substrate      | 7N | LR  | Donohue et al., 2001                    |
| <i>Pandalus platyceros</i> Brandt, 1851            | NE | 15  | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Panulirus laevicauda</i> (Latreille, 1817)      | DD | 1   | derelict gillnets             | entanglement          | 1T | LR  | Adelir-Alves et al., 2016               |
| <i>Paromola cuvieri</i> (Risso, 1816)              | NE | 1   | plastic/derelict fishing nets | covering/entanglement | 6K | LR  | Taviani et al., 2017                    |
| <i>Petrochirus diogenes</i> (Linnaeus, 1758)       | NE | 1   | plastic cup                   | "mobile home"         | 1A | UVC | Present work                            |
| <i>Petrolisthes spp.</i>                           | NE | 20  | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Phyllolithodes papillosus</i> Brandt, 1848      | NE | 15  | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Pilodius areolatus</i> (H. Milne Edwards, 1834) | NE | 1   | fishing gear                  | refuge/substrate      | 7N | LR  | Donohue et al., 2001                    |
| <i>Placetron wosnessenskii</i> Schalfeew, 1892     | NE | 2   | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Portunidae</i>                                  | NE | 1   | paint bucket                  | refuge                | 2A | PD  | Present work                            |
| <i>Pugettia producta</i> (Randall, 1840)           | NE | 119 | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Pugettia richii</i> Dana, 1851                  | NE | 95  | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Pugettia gracilis</i> Dana, 1851                | NE | 820 | derelict fishing nets         | entanglement          | 7O | LR  | Good et al., 2010                       |
| <i>Rhinolithodes wosnessenskii</i> Brandt, 1848    | NE | 65  | derelict fishing nets/gear    | entanglement          | 7O | LR  | Gilardi et al., 2010; Good et al., 2010 |
| <i>Saron marmoratus</i> (Olivier, 1811)            | NE | 1   | fishing gear                  | refuge/substrate      | 7N | LR  | Donohue et al., 2001                    |



|  |    |     |                       |                    |       |        |   |
|--|----|-----|-----------------------|--------------------|-------|--------|---|
| <i>Scyllarus arctus</i> (Linnaeus, 1758)             | LC | 44  | gill and trammel nets | catches in DFG     | 1W    | LR     | Erzini et al., 1997 <sup>+</sup>        |
| <i>Scyra acutifrons</i> Dana, 1852                   | NE | 16  | derelict fishing gear | entanglement       | 7O    | LR     | Good et al., 2010                       |
| <i>Stenopus hispidus</i> (Olivier, 1811)             | NE | 2   | car tyres             | refuge             | 1A    | UVC    | Present work                            |
| <i>Stenorhynchus seticornis</i> (Herbst, 1788)       | NE | 1   | car tyres             | refuge             | 1A    | UVC    | Present work                            |
| <i>Telmessus cheiragonus</i> (Tilesius, 1812)        | NE | 10  | derelict fishing gear | entanglement       | 7O    | LR     | Good et al., 2010                       |
| Unidentified hermit crab                             | NE | 1   | metal can             | "mobile home"      | 1M    | CS     | Present work                            |
| <b>Echinodermata</b>                                 |    |     |                       |                    |       |        |   |
| <i>Astrospartus mediterraneus</i> (Risso, 1826)      | NE | -   | fishing gear          | substrate          | 6F    | LR     | Angiolillo et al., 2015                 |
| <i>Crossaster papposus</i> (Linnaeus, 1767)          | NE | 1   | derelict fishing nets | entanglement       | 7O    | LR     | Good et al., 2010                       |
| <i>Cucumaria miniata</i> (Brandt, 1835)              | NE | 10  | derelict fishing nets | entanglement       | 7O    | LR     | Good et al., 2010                       |
| <i>Diadema antillarum</i> Philippi, 1845             | NE | 1   | plastic               | entanglement       | 1A    | UVC    | Present work                            |
| <i>Echinaster sp.</i>                                | NE | 1   | metal                 | substrate          | 1A    | UVC    | Present work                            |
| <i>Echinometra lucunter</i> (Linnaeus, 1758)         | NE | 25  | fishing gear, cloth   | covering           | 1A    | UVC    | Present work                            |
| <i>Eucidaris tribuloides</i> (Lamarck, 1816)         | NE | 1   | fishing gear          | entanglement       | 1A    | UVC    | Present work                            |
| <i>Evasterias troschelii</i> (Stimpson, 1862)        | NE | 9   | derelict fishing nets | entanglement       | 7O    | LR     | Good et al., 2010                       |
| <i>Gephyreaster swifti</i> (Fisher, 1905)            | NE | 1   | derelict fishing nets | entanglement       | 7O    | LR     | Good et al., 2010                       |
| <i>Henricia leviuscula</i> (Stimpson, 1857)          | NE | 612 | derelict fishing nets | entanglement       | 7O    | LR     | Good et al., 2010                       |
| <i>Henricia sanguinolenta</i> (O.F. Müller, 1776)    | NE | 8   | derelict fishing nets | entanglement       | 7O    | LR     | Good et al., 2010                       |
| <i>Lytechinus variegatus</i> (Lamarck, 1816)         | NE | 120 | plastic, paper, glass | covering/substrate | 1A/II | UVC/PD | Present work.                           |
| <i>Luidia foliolata</i> (Grube, 1866)                | NE | 3   | derelict fishing nets | entanglement       | 7O    | LR     | Good et al., 2010                       |
| <i>Ophiocoma erinaceus</i> Müller & Troschel, 1842   | NE | 1   | fishing gear          | refuge/substrate   | 7N    | LR     | Donohue et al., 2001                    |
| <i>Mediaster aequalis</i> Stimpson, 1857             | NE | 2   | derelict fishing nets | entanglement       | 7O    | LR     | Good et al., 2010                       |
| <i>Mesocentrotus franciscanus</i> (A. Agassiz, 1863) | NE | 295 | derelict fishing nets | entanglement       | 7O    | LR     | Gilardi et al., 2010; Good et al., 2010 |
| <i>Ophioderma cinerea</i> Müller & Troschel, 1842    | NE | 1   | plastic               | substrate          | 1A    | UVC    | Present work                            |
| <i>Ophiopholis aculeata</i> (Linnaeus, 1767)         | NE | 100 | derelict fishing nets | entanglement       | 7O    | LR     | Good et al., 2010                       |

|  |    |      |  |                       |        |        |   |
|--|----|------|--|-----------------------|--------|--------|---|
| <i>Ophiothrix</i> sp.  | NE | -    | fishing gear                                     | substrate             | 6J     | LR     | Lastras et al., 2016                            |
| <i>Ophiuroidea</i> spp.                                      | NE | 100  | derelict fishing nets                            | entanglement          | 7O     | LR     | Good et al., 2010                               |
| <i>Orthasterias koehleri</i> (deLoriol, 1897)                | NE | 90   | derelict fishing nets                            | entanglement          | 7O     | LR     | Good et al., 2010                               |
| <i>Parastichopus californicus</i> (Stimpson, 1857)           | LC | 503  | derelict fishing nets                            | entanglement          | 7O     | LR     | Good et al., 2010                               |
| <i>Pisaster brevispinus</i> (Stimpson, 1857)                 | NE | 11   | derelict fishing nets                            | entanglement          | 7O     | LR     | Good et al., 2010                               |
| <i>Pycnopodia helianthoides</i> (Brandt, 1835)               | NE | 184  | derelict fishing nets                            | entanglement          | 7O     | LR     | Good et al., 2010                               |
| <i>Stylasterias forreri</i> (deLoriol, 1887)                 | NE | 1    | derelict fishing nets                            | entanglement          | 7O     | LR     | Good et al., 2010                               |
| <i>Solaster stimpsoni</i> Verrill, 1880                      | NE | 2    | derelict fishing nets                            | entanglement          | 7O     | LR     | Good et al., 2010                               |
| <i>Sphaerechinus granularis</i> (Lamarck, 1816)              | NE | 1    | plastic bottle                                   | refuge                | 6      | LR     | Katsanevakis, 2008                              |
| <i>Strongylocentrotus droebachiensis</i> (O.F. Müller, 1776) | NE | 873  | derelict fishing nets                            | entanglement          | 7O     | LR     | Gilardi et al., 2010; Good et al., 2010         |
| <i>Strongylocentrotus purpuratus</i> (Stimpson, 1857)        | NE | 2    | derelict fishing nets                            | entanglement          | 7O     | LR     | Good et al., 2010                               |
| <i>Tripneustes ventricosus</i> (Lamarck, 1816)               | NE | 9    | plastic cutlery, plastic, metal and glass debris | covering              | 1A /3B | UVC/PD | Present work                                    |
| Unidentified starfish  | NE | 1    | batch of balloons                                | smothering            | 7C     | PD     | Present work                                    |
| <b>Chordata - Ascidians</b>                                  |    |      |  |                       |        |        |   |
| <i>Boltenia villosa</i> (Stimpson, 1864)                     | NE | 1592 | derelict fishing nets                            | entanglement          | 7O     | LR     | Good et al., 2010                               |
| <i>Ciona intestinalis</i> (Linnaeus, 1767)                   | NE | -    | plastic bottles, glass jars                      | substrate             | 6E     | LR     | Katsanevakis et al., 2007                       |
| <i>Phallusia nigra</i> Savigny, 1816                         | NE | 1    | plastic  | substrate             | 1A     | UVC    | Present work                                    |
| <i>Microcosmus</i> sp.                                       | NE | 1    | plastic  | substrate             | 1A     | UVC    | Present work                                    |
| <b>Chordata - Fishes</b>                                     |    |      |  |                       |        |        |   |
| <i>Abudefduf saxatilis</i> (Linnaeus, 1758)                  | LC | 2    | derelict gillnets                                | entanglement          | 1T     | LR     | Adelir-Alves et al., 2016                       |
| <i>Acanthostracion quadricornis</i> (Linnaeus, 1758)         | LC | 13   | derelict fishing traps                           | catches in DFG        | 3C     | LR     | Renchen et al., 2014 <sup>+</sup>               |
| <i>Acanthurus bahianus</i> Castelnau, 1855                   | LC | 21   | car tyres/derelict fishing gear, traps           | refuge/catches in DFG | 1A/3C  | UVC    | Present work; Renchen et al., 2014 <sup>+</sup> |
| <i>Acanthurus chirurgus</i> (Bloch, 1787)                    | LC | 115  | car tyres/derelict fishing gear, traps           | refuge/catches in DFG | 1A/3C  | UVC    | Present work; Renchen et al., 2014 <sup>+</sup> |

|   |    |     |                                 |                       |       |        |   |
|---|----|-----|---------------------------------|-----------------------|-------|--------|---|
| <i>Acanthurus coeruleus</i> Bloch & Schneider, 1801   | LC | 132 | fishing gear, traps             | refuge/catches in DFG | 1A/3C | UVC    | Present work; Renchen et al., 2014 <sup>+</sup> |
| <i>Aluterus scriptus</i> (Osbeck, 1765)               | LC | 5   | derelict fishing traps          | catches in DFG        | 3C    | LR     | Renchen et al., 2014 <sup>+</sup>               |
| <i>Anguilla rostrata</i> (Lesueur, 1817)              | EN | 46  | derelict crab pots              | entanglement          | 1C    | LR     | Havens et al. 2011; Bilkovic et al. 2014        |
| <i>Anisotremus surinamensis</i> (Bloch, 1791)         | DD | 3   | derelict gillnets               | entanglement          | 1T    | LR     | Adelir-Alves et al., 2016                       |
| <i>Anthias anthias</i> (Linnaeus, 1758)               | LC | -   | sack                            | refuge                | 6F    | LR     | Angiolillo et al., 2015                         |
| <i>Archosargus probatocephalus</i> (Walbaum, 1792)    | LC | 7   | derelict crab pots              | entanglement          | 1C    | LR     | Havens et al. 2011; Bilkovic et al. 2014        |
| <i>Astroscoptes guttatus</i> Abbott, 1860             | LC | 1   | derelict crab pots              | entanglement          | 1C    | LR     | Havens et al. 2011; Bilkovic et al. 2014        |
| <i>Astrapogon puncticulatus</i> (Poey, 1867)          | LC | 5   | soda can / glass bottle / cloth | refuge                | 1A/3A | UVC/CS | Present work                                    |
| <i>Balistes capriscus</i> Gmelin, 1789                | VU | 5   | gill and trammel nets           | catches in DFG        | 1W    | LR     | Erzini et al., 1997 <sup>+</sup>                |
| <i>Balistes vetula</i> Linnaeus, 1758                 | NT | 7   | derelict fishing traps          | catches in DFG        | 3C    | LR     | Renchen et al., 2014 <sup>+</sup>               |
| <i>Brevoortia tyrannus</i> (Latrobe, 1802)            | LC | 1   | derelict crab pots              | entanglement          | 1C    | LR     | Havens et al. 2011; Bilkovic et al. 2014        |
| <i>Buglossidium luteum</i> (Risso, 1810)              | LC | 1   | gill net                        | catches in DFG        | 1W    | LR     | Erzini et al., 1997 <sup>+</sup>                |
| <i>Callanthias ruber</i> (Rafinesque, 1810)           | LC | -   | debris                          | refuge                | 6F    | LR     | Angiolillo et al., 2015                         |
| <i>Callionymus lyra</i> Linnaeus, 1758                | LC | 1   | gill net                        | catches in DFG        | 1W    | LR     | Erzini et al., 1997 <sup>+</sup>                |
| <i>Canthigaster jactator</i> (Jenkins, 1901)          | LC | 1   | fishing gear                    | refuge/substrate      | 7N    | LR     | Donohue et al., 2001                            |
| <i>Caranx crysos</i> (Mitchill, 1815)                 | LC | 1   | derelict fishing traps          | catches in DFG        | 3C    | LR     | Renchen et al., 2014 <sup>+</sup>               |
| <i>Caranx rhonchus</i> Geoffroy Saint-Hilaire, 1817   | LC | 5   | gill nets                       | catches in DFG        | 1W    | LR     | Erzini et al., 1997 <sup>+</sup>                |
| <i>Caranx ruber</i> (Bloch, 1793)                     | LC | 4   | derelict fishing traps          | catches in DFG        | 3C    | LR     | Renchen et al., 2014 <sup>+</sup>               |
| <i>Carcharias taurus</i> Rafinesque, 1810             | VU | 1   | twine                           | entanglement          | 5D    | LR     | Ryan in Laist, 1997                             |
| <i>Carcharhinus amblyrhynchos</i> (Bleeker, 1856)     | NT | 1   | Indonesian gill net             | entanglement          | 7E    | LR     | Kiessling, 2003                                 |
| <i>Carcharhinus brevipinna</i> (Müller & Henle, 1839) | NT | 2   | strapping bands                 | entanglement          | 5D    | LR     | Cliff et al., 2002                              |

|   |    |     |                                |                       |       |        |  |
|---|----|-----|--------------------------------|-----------------------|-------|--------|--|
| <i>Carcharhinus brachyurus</i> (Günther, 1870)          | NT | 4   | strapping bands                | entanglement          | 5D    | LR     | Cliff et al., 2002                                     |
| <i>Carcharhinus leucas</i> (Müller & Henle, 1839)       | NT | 2   | strapping bands                | entanglement          | 5D    | LR     | Cliff et al., 2002                                     |
| <i>Carcharhinus limbatus</i> (Müller & Henle, 1839)     | NT | 9   | strapping bands                | entanglement          | 5D    | LR     | Cliff et al., 2002                                     |
| <i>Carcharhinus melanopterus</i> (Quoy & Gaimard, 1824) | NT | 1   | unidentified gill net          | entanglement          | 5A    | LR     | Kiessling, 2003  |
| <i>Carcharhinus obscurus</i> (Lesueur, 1818)            | VU | 27  | strapping bands                | entanglement          | 5D    | LR     | Cliff et al., 2002                                     |
| <i>Carcharhinus plumbeus</i> (Nardo, 1827)              | VU | 2   | strapping bands                | entanglement          | 5D    | LR     | Cliff et al., 2002                                     |
| <i>Carcharodon carcharias</i> (Linnaeus, 1758)          | VU | 5   | strapping bands                | entanglement          | 5D    | LR     | Cliff et al., 2002                                     |
| <i>Centropristis striata</i> (Linnaeus, 1758)           | LC | 104 | derelict crab pots             | entanglement          | 1C    | LR     | Havens et al. 2011;<br>Bilkovic et al. 2014            |
| <i>Centropyge potteri</i> (Jordan & Metz, 1912)         | LC | 1   | fishing gear                   | refuge/substrate      | 7N    | LR     | Donohue et al., 2001                                   |
| <i>Cephalopholis fulva</i> (Linnaeus, 1758)             | LC | 2   | plastic/derelict fishing traps | refuge/catches in DFG | 1A/3C | UVC    | Present work; Renchen et al., 2014 <sup>+</sup>        |
| <i>Chaetodipterus faber</i> (Broussonet, 1782)          | LC | 3   | car tyres/derelict crab pots   | refuge/entanglement   | 1A/1C | UVC/LR | Present work; Havens et al. 2011; Bilkovic et al. 2014 |
| <i>Chaetodon ocellatus</i> Bloch, 1787                  | LC | 20  | derelict fishing traps         | catches in DFG        | 3C    | LR     | Renchen et al., 2014 <sup>+</sup>                      |
| <i>Chaetodon sedentarius</i> Poey, 1860                 | LC | 2   | derelict fishing traps         | catches in DFG        | 3C    | LR     | Renchen et al., 2014 <sup>+</sup>                      |
| <i>Chaetodon striatus</i> Linnaeus, 1758                | LC | 13  | derelict fishing traps         | catches in DFG        | 3C    | LR     | Renchen et al., 2014 <sup>+</sup>                      |
| <i>Chilomycterus schoepfii</i> (Walbaum, 1792)          | LC | 1   | derelict crab pots             | entanglement          | 1C    | LR     | Havens et al. 2011;<br>Bilkovic et al. 2014            |
| <i>Chloroscombrus chrysurus</i> (Linnaeus, 1766)        | LC | 1   | derelict gillnets              | entanglement          | 1T    | LR     | Adelir-Alves et al., 2016                              |
| <i>Chromis chromis</i> (Linnaeus, 1758)                 | LC | -   | octopus and fish traps         | catches in DFG        | 1W    | LR     | Erzini et al., 2008 <sup>+</sup>                       |
| <i>Clupea harengus</i> Linnaeus, 1758                   | LC | 1   | gill net                       | entanglement          | 7D    | LR     | Breen, 1990  |
| <i>Conger conger</i> (Linnaeus, 1758)                   | LC | 1   | trammel net                    | catches in DFG        | 1W    | LR     | Erzini et al., 1997 <sup>+</sup>                       |
| <i>Coris julis</i> (Linnaeus, 1758)                     | LC | -   | octopus and fish traps         | catches in DFG        | 1W    | LR     | Erzini et al., 2008 <sup>+</sup>                       |
| Cottidae  | NE | 14  | derelict fishing nets          | entanglement          | 7O    | LR     | Good et al., 2010                                      |
| Cyprinidae  | NE | 12  | derelict crab pots             | entanglement          | 1C    | LR     | Havens et al. 2011;                                    |

Bilkovic et al. 2014

|   |    |    |  |                |    |     |   |
|---|----|----|--|----------------|----|-----|---|
| <i>Dentex gibbosus</i> (Rafinesque, 1810)               | LC | 1  | trammel net                                  | catches in DFG | 1W | LR  | Erzini et al., 1997 <sup>+</sup>                                    |
| <i>Diplodus annularis</i> (Linnaeus, 1758)              | LC | 7  | gill nets/octopus and fish traps             | catches in DFG | 1W | LR  | Erzini et al., 1997 <sup>+</sup> ; Erzini et al., 2008 <sup>+</sup> |
| <i>Diplodus bellottii</i> (Steindachner, 1882)          | LC | 53 | gill and trammel nets/octopus and fish traps | catches in DFG | 1W | LR  | Erzini et al., 1997 <sup>+</sup> ; Erzini et al., 2008 <sup>+</sup> |
| <i>Diplodus cervinus</i> (Lowe, 1838)                   | LC | 2  | trammel nets                                 | catches in DFG | 1W | LR  | Erzini et al., 1997 <sup>+</sup>                                    |
| <i>Diplodus puntazzo</i> (Walbaum, 1792)                | LC | 4  | trammel nets                                 | catches in DFG | 1W | LR  | Erzini et al., 1997 <sup>+</sup>                                    |
| <i>Diplodus sargus sargus</i> (Linnaeus, 1758)          | LC | 4  | gill and trammel nets                        | catches in DFG | 1W | LR  | Erzini et al., 1997 <sup>+</sup>                                    |
| <i>Diplodus</i> spp.                                    | NE | 11 | gill and trammel nets                        | catches in DFG | 1W | LR  | Erzini et al., 1997 <sup>+</sup>                                    |
| <i>Diplodus vulgaris</i> (Geoffroy Saint-Hilaire, 1817) | LC | 39 | gill and trammel nets/octopus and fish traps | catches in DFG | 1W | LR  | Erzini et al., 1997 <sup>+</sup> ; Erzini et al., 2008 <sup>+</sup> |
| <i>Diodon hystrix</i> Linnaeus, 1758                    | LC | 15 | derelict fishing traps                       | catches in DFG | 3C | LR  | Renchen et al., 2014 <sup>+</sup>                                   |
| <i>Diodon liturosus</i> Shaw, 1804                      | NE | 1  | fishing gear                                 | entanglement   | 7F | SM  | Core Sea Org.   |
| <i>Epinephelus adscensionis</i> (Osbeck, 1765)          | LC | 1  | fishing gear                                 | refuge         | 1A | UVC | Present work  |
| <i>Epinephelus guttatus</i> (Linnaeus, 1758)            | LC | 22 | derelict fishing traps                       | catches in DFG | 3C | LR  | Renchen et al., 2014 <sup>+</sup>                                   |
| <i>Epinephelus marginatus</i> (Lowe, 1834)              | EN | 7  | derelict gill nets                           | entanglement   | 1T | LR  | Adelir-Alves et al., 2016   |
| <i>Epinephelus radiatus</i> (Day, 1868)                 | LC | 1  | soda can                                     | refuge         | 7T | PD  | Present work  |
| <i>Epinephelus striatus</i> (Bloch, 1792)               | EN | 2  | derelict fishing traps                       | catches in DFG | 3C | LR  | Renchen et al., 2014 <sup>+</sup>                                   |
| <i>Eucinostomus argenteus</i> Baird & Girard, 1855      | LC | 1  | plastic collar                               | entanglement   | 1Q | LR  | Nunes et al., 2017  |
| <i>Fundulus majalis</i> (Walbaum, 1792)                 | LC | 1  | derelict crab pots                           | entanglement   | 1C | LR  | Havens et al. 2011; Bilkovic et al. 2014                            |
| <i>Galeocerdo cuvier</i> (Péron & Lesueur, 1822)        | NT | 2  | strapping bands                              | entanglement   | 5D | LR  | Cliff et al., 2002  |
| <i>Gerres cinereus</i> (Walbaum, 1792)                  | LC | 1  | derelict fishing traps                       | catches in DFG | 3C | LR  | Renchen et al., 2014 <sup>+</sup>                                   |
| <i>Ginglymostoma cirratum</i> (Bonnaterre, 1788)        | DD | 52 | derelict fishing traps                       | catches in DFG | 3C | LR  | Renchen et al., 2014 <sup>+</sup>                                   |
| <i>Gymnothorax griseus</i> (Lacepède, 1803)             | NE | 1  | paint bucket                                 | refuge         | 4A | PD  | Present work  |

|  |    |     |                                  |                                |       |     |  |
|--|----|-----|----------------------------------|--------------------------------|-------|-----|--|
| <i>Gymnothorax sp.</i>                                   | NE | 1   | brick                            | refuge                         | 1K    | UVC | Present work   |
| <i>Gymnothorax steindachneri</i> Jordan & Evermann, 1903 | NE | 1   | fishing gear                     | refuge/substrate               | 7N    | LR  | Donohue et al., 2001   |
| <i>Gobius bucchichi</i> Steindachner, 1870               | LC | 1   | plastic                          | refuge                         | 1J    | UVC | Present work   |
| <i>Haemulon aurolineatum</i> Cuvier, 1830                | LC | 1   | plastic collar                   | entanglement                   | 1Q    | LR  | Nunes et al., 2017   |
| <i>Haemulon parra</i> (Desmarest, 1823)                  | LC | 4   | car tyres/plastic                | refuge                         | 1A    | UVC | Present work   |
| <i>Haemulon plumierii</i> (Lacepède, 1801)               | LC | 32  | derelict fishing traps           | catches in DFG                 | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>                            |
| <i>Haemulon sciurus</i> (Shaw, 1803)                     | LC | 59  | derelict fishing traps           | catches in DFG                 | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>                            |
| <i>Hemilepidotus hemilepidotus</i> (Tilesius, 1811)      | NE | 23  | derelict fishing nets            | entanglement                   | 7O    | LR  | Good et al., 2010  |
| <i>Hemitripterus americanus</i> (Gmelin, 1789)           | NE | -   | ghost gilnet                     | entanglement                   | 1G    | LR  | Carr, 1986   |
| <i>Heteropriacanthus cruentatus</i> (Lacepède, 1801)     | LC | 1   | car tyres                        | refuge                         | 1A    | UVC | Present work   |
| <i>Hexagrammos decagrammus</i> (Pallas, 1810)            | NE | 73  | derelict fishing nets            | entanglement                   | 7O    | LR  | Gilardi et al., 2010; Good et al., 2010                      |
| <i>Hexagrammos spp.</i>                                  | NE | 1   | derelict fishing nets            | entanglement                   | 7O    | LR  | Good et al., 2010  |
| <i>Hexanchus griseus</i> (Bonnaterre, 1788)              | NT | 1   | derelict fishing gear            | entanglement                   | 7O    | LR  | Good et al., 2010  |
| <i>Hydrolagus colliei</i> (Lay & Bennett, 1839)          | LC | 121 | derelict fishing nets            | entanglement                   | 7O    | LR  | Gilardi et al., 2010; Good et al., 2010                      |
| <i>Hippocampus kuda</i> Bleeker, 1852                    | VU | 1   | plastic cotton swab              | substrate                      | 5G    | PD  | Osterloff, 2017/National History Museum                      |
| <i>Hippocampus reidi</i> Ginsburg, 1933                  | NT | 1   | plastic debris                   | refuge, protective resemblance | 1X    | LR  | Marques and Barreiros, 2016                                  |
| <i>Hypsoblennius hentz</i> (Lesueur, 1825)               | LC | 1   | derelict crab pots               | entanglement                   | 1C    | LR  | Havens et al. 2011; Bilkovic et al. 2014                     |
| <i>Holacanthus ciliaris</i> (Linnaeus, 1758)             | LC | 13  | derelict fishing traps           | catches in DFG                 | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>                            |
| <i>Holocentrus adscensionis</i> (Osbeck, 1765)           | LC | 9   | derelict gillnets, fishing traps | entanglement/catches in DFG    | 1T/3C | LR  | Adelir-Alves et al., 2016; Renchen et al., 2014 <sup>+</sup> |
| Ictaluridae  | NE | 43  | derelict crab pots               | entanglement                   | 1C    | LR  | Havens et al. 2011; Bilkovic et al. 2014                     |
| <i>Jordania zonope</i> Starks, 1895                      | NE | 1   | derelict fishing gear            | entanglement                   | 7O    | LR  | Good et al., 2010  |

|  |    |     |                                   |                 |       |     |   |
|--|----|-----|-----------------------------------|-----------------|-------|-----|---|
| <i>Labrisomus nuchipinnis</i> (Quoy & Gaimard, 1824) | LC | 1   | brick                             | refuge          | 1L    | UVC | Present work                                |
| <i>Labrus merula</i> Linnaeus, 1758                  | LC | 1   | trammel net                       | catches in DFG  | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>            |
| <i>Lactophrys bicaudalis</i> (Linnaeus, 1758)        | LC | 4   | derelict fishing traps            | catches in DFG  | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>           |
| <i>Lactophrys triqueter</i> (Linnaeus, 1758)         | LC | 81  | derelict fishing traps            | catches in DFG  | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>           |
| <i>Lagocephalus laevigatus</i> (Linnaeus, 1766)      | LC | 1   | derelict gillnets                 | entanglement    | 1T    | LR  | Adelir-Alves et al., 2016                   |
| <i>Lagodon rhomboides</i> (Linnaeus, 1766)           | LC | 1   | derelict crab pots                | entanglement    | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014 |
| <i>Leiostomus xanthurus</i> Lacepède, 1802           | LC | 23  | derelict crab pots                | entanglement    | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014 |
| <i>Leptocottus armatus</i> Girard, 1854              | LC | 1   | derelict fishing gear             | entanglement    | 7O    | LR  | Good et al., 2010                           |
| <i>Lyopsetta exilis</i> (Jordan & Gilbert, 1880)     | LC | 3   | derelict fishing gear             | entanglement    | 7O    | LR  | Good et al., 2010                           |
| <i>Lubricogobius dinah</i> Randall & Senou, 2001     | NE | 20  | soda can/glass bottle             | refuge          | 7G/7J | PD  | Present work                                |
| <i>Lubricogobius exiguus</i> Tanaka, 1915            | NE | 4   | plastic/sonda can/glass<br>/cloth | refuge/breeding | 7G/7M | PD  | Present work                                |
| <i>Lutjanus analis</i> (Cuvier, 1828)                | NT | 15  | derelict fishing traps            | catches in DFG  | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>           |
| <i>Lutjanus apodus</i> (Walbaum, 1792)               | LC | 134 | derelict fishing traps            | catches in DFG  | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>           |
| <i>Lutjanus griseus</i> (Linnaeus, 1758)             | LC | 2   | derelict fishing traps            | catches in DFG  | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>           |
| <i>Lutjanus jocu</i> (Bloch & Schneider, 1801)       | DD | 26  | derelict fishing traps            | catches in DFG  | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>           |
| <i>Lutjanus mahogoni</i> (Cuvier, 1828)              | LC | 6   | derelict fishing traps            | catches in DFG  | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>           |
| <i>Lutjanus synagris</i> (Linnaeus, 1758)            | NT | 13  | derelict fishing traps            | catches in DFG  | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>           |
| <i>Malacoctenus sp.</i>                              | NE | 1   | fishing gear                      | refuge          | 1A    | UVC | Present work                                |
| <i>Merluccius merluccius</i> (Linnaeus, 1758)        | LC | 1   | trammel net                       | catches in DFG  | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>            |
| <i>Meiacanthus kamoharai</i> Tomiyama, 1956          | LC | 2   | glass bottle                      | refuge          | 7T    | PD  | Present work                                |
| <i>Microgobius carri</i> Fowler, 1945                | LC | 2   | plastic                           | refuge/breeding | 1A    | UVC | Present work                                |
| <i>Micropogonias undulatus</i> (Linnaeus, 1766)      | LC | 78  | derelict crab pots                | entanglement    | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014 |
| <i>Morone americana</i> (Gmelin, 1789)               | LC | 44  | derelict crab pots                | entanglement    | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014 |

|   |    |     |  |                             |       |     |  |
|---|----|-----|--|-----------------------------|-------|-----|--|
| <i>Morone saxatilis</i> (Walbaum, 1792)                 | LC | 6   | derelict crab pots                       | entanglement                | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014                                      |
| <i>Mugil spp.</i>                                       | NE | 3   | derelict crab pots/gill and trammel nets | entanglement/catches in DFG | 1C/1W | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014;<br>Erzini et al., 1997 <sup>+</sup> |
| <i>Mullus surmuletus</i> Linnaeus, 1758                 | LC | 5   | gill nets                                | catches in DFG              | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>   |
| <i>Muraena helena</i> Linnaeus, 1758                    | LC | -   | debris/octopus and fish traps            | refuge/catches in DFG       | 6F/1W | LR  | Angiolillo et al., 2015;<br>Erzini et al., 2008 <sup>+</sup>                     |
| <i>Myoxocephalus polyacanthocephalus</i> (Pallas, 1814) | NE | 9   | derelict fishing nets                    | entanglement                | 7O    | LR  | Good et al., 2010  |
| <i>Nautichthys oculofasciatus</i> (Girard, 1858)        | NE | 2   | derelict fishing nets                    | entanglement                | 7O    | LR  | Good et al., 2010  |
| <i>Ocyurus chrysurus</i> (Bloch, 1791)                  | DD | 14  | derelict fishing traps                   | catches in DFG              | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>  |
| <i>Ophioblennius trinitatis</i> Miranda Ribeiro, 1919   | LC | 2   | plastic                                  | refuge                      | 1A    | UVC | Present work   |
| <i>Ophiodon elongatus</i> Girard, 1854                  | NE | 101 | derelict fishing nets                    | entanglement                | 7O    | LR  | Gilardi et al., 2010; Good et al., 2010  |
| <i>Opisthonema oglinum</i> (Lesueur, 1818)              | LC | 1   | plastic                                  | entanglement                | 1A    | UVC | de Carvalho-Souza, 2009  |
| <i>Opsanus tau</i> (Linnaeus, 1766)                     | LC | 837 | derelict crab pots                       | refuge/entanglement         | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014                                      |
| <i>Orthopristis chrysoptera</i> (Linnaeus, 1766)        | LC | 5   | derelict crab pots                       | entanglement                | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014                                      |
| <i>Oxycheilinus bimaculatus</i> (Valenciennes, 1840)    | LC | 1   | fishing gear                             | refuge/substrate            | 7N    | LR  | Donohue et al., 2001   |
| <i>Pagellus acarne</i> (Risso, 1827)                    | LC | 2   | plastic debris colar/trammel net         | entanglement/catches in DFG | 1P/1W | LR  | Barreiros and Guerreiro, 2014; Erzini et al., 1997 <sup>+</sup>                  |
| Paralichthyidae   | NE | 13  | derelict crab pots                       | entanglement                | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014                                      |
| <i>Parablennius gattorugine</i> (Linnaeus, 1758)        | LC | 2   | gill nets                                | catches in DFG              | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>   |
| <i>Parablennius pilicornis</i> (Cuvier, 1829)           | LC | 1   | bottle glass                             | refuge                      | 1B    | SM  | Present work   |
| <i>Parablennius tasmanianus</i> (Richardson, 1842)      | LC | 2   | metal can / bottle glass                 | refuge                      | 7L    | PD  | Present work   |
| <i>Pareques acuminatus</i> (Bloch & Schneider, 1801)    | LC | 2   | car tyres / brick                        | refuge                      | 1A/1L | UVC | Present work   |



|   |    |     |   |                  |          |     |  |
|---|----|-----|---|------------------|----------|-----|--|
| <i>Parophrys vetulus</i> Girard, 1854                 | NE | 3   | derelict fishing nets   | entanglement     | 7O       | LR  | Good et al., 2010  |
| <i>Pempheris schomburgkii</i> Müller & Troschel, 1848 | LC | 1   | sewage pipe   | refuge           | 1H       | PD  | Present work   |
| <i>Peprilus triacanthus</i> (Peck, 1804)              | NE | 1   | derelict crab pots  | entanglement     | 1C       | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014                            |
| <i>Pervagor spilosoma</i> (Lay & Bennett, 1839)       | NE | 1   | fishing gear  | refuge/substrate | 7N       | LR  | Donohue et al., 2001   |
| <i>Petroscirtes breviceps</i> (Valenciennes, 1836)    | LC | 9   | soda can / glass bottle / pipe  | refuge           | 7A/7G/7K | PD  | Present work   |
| <i>Petroscirtes lupus</i> (De Vis, 1885)              | LC | 5   | soda can / glass bottle   | refuge           | 7L       | PD  | Present work   |
| <i>Petroscirtes sp.</i>                               | NE | 1   | plastic tube  | refuge           | 4A       | PD  | Present work   |
| <i>Phycis phycis</i> (Linnaeus, 1766)                 | LC | 4   | gill nets/octopus and fish traps  | catches in DFG   | 1W       | LR  | Erzini et al., 1997 <sup>+</sup> ;<br>Erzini et al., 2008 <sup>+</sup> |
| <i>Plagiotremus tapeinosoma</i> (Bleeker, 1857)       | LC | 1   | glass bottle  | refuge           | 7L       | PD  | Present work   |
| <i>Platichthys stellatus</i> (Pallas, 1788)           | LC | 3   | derelict fishing gear   | entanglement     | 7O       | LR  | Good et al., 2010  |
| <i>Pogonias cromis</i> Linnaeus, 1766)                | LC | 1   | derelict crab pots  | entanglement     | 1C       | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014                            |
| <i>Pomacanthus arcuatus</i> (Linnaeus, 1758)          | LC | 132 | derelict fishing traps  | catches in DFG   | 3C       | LR  | Renchen et al., 2014 <sup>+</sup>                                      |
| <i>Pomacanthus asfur</i> (Forsskål, 1775)             | LC | 1   | fishing gear  | entanglement     | 5B       | PD  | Present work   |
| <i>Pomadasyus incisus</i> (Bowdich, 1825)             | LC | 8   | gill and trammel nets   | catches in DFG   | 1W       | LR  | Erzini et al., 1997 <sup>+</sup>                                       |
| <i>Pomatomus saltatrix</i> (Linnaeus, 1766)           | VU | 1   | derelict crab pots  | entanglement     | 1C       | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014                            |
| <i>Porichthys porosissimus</i> (Cuvier, 1829)         | NE | 1   | derelict gillnets   | entanglement     | 1T       | LR  | Adelir-Alves et al., 2016  |
| <i>Pristis pectinata</i> Latham, 1794                 | CR | 15  | polyvinyl chloride (PVC) pipe, an elastic band, monofilament, non-monofilament, braided fishing lines | entanglement     | 1O       | LR  | Seitz and Poulakis, 2006   |
| <i>Pristigenys nipponia</i> (Cuvier, 1829)            | NE | 2   | soda can, bottle  | refuge           | 7T       | PD  | Present work   |
| <i>Pseudocheilinus octotaenia</i> Jenkins, 1901       | LC | 1   | fishing gear  | refuge/substrate | 7N       | LR  | Donohue et al., 2001   |
| <i>Pseudupeneus maculatus</i> (Bloch, 1793)           | NE | 1   | car tyres   | refuge           | 1A       | UVC | Present work   |

|   |    |     |  |                             |       |     |  |
|---|----|-----|--|-----------------------------|-------|-----|--|
| <i>Rhizoprionodon lalandii</i> (Müller & Henle, 1839) | DD | 3   | plastic collar   | entanglement                | 1F    | LR  | Sazima et al., 2002  |
| <i>Rypticus bistrispinus</i> (Mitchill, 1818)         | LC | 4   | plastic / pipe / brick                                     | refuge                      | 1A/1L | UVC | Present work   |
| <i>Rypticus saponaceus</i> (Bloch & Schneider, 1801)  | LC | 1   | car tyres  | refuge                      | 1A    | UVC | Present work   |
| <i>Sarpa salpa</i> (Linnaeus, 1758)                   | LC | 19  | gill and trammel nets                                      | catches in DFG              | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>   |
| <i>Scarus iserti</i> (Bloch, 1789)                    | LC | 2   | derelict fishing traps                                     | catches in DFG              | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>  |
| <i>Sciaenops ocellatus</i> (Linnaeus, 1766)           | LC | 2   | derelict crab pots   | entanglement                | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014  |
| <i>Scomber japonicus</i> Houttuyn, 1782               | LC | 12  | gill and trammel nets                                      | catches in DFG              | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>   |
| <i>Scomber</i> spp.                                   | NE | 1   | gill nets  | catches in DFG              | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>   |
| <i>Scorpaena elongata</i> Cadenat, 1943               | LC | -   | debris   | refuge                      | 6F    | LR  | Angiolillo et al., 2015  |
| <i>Scorpaena notata</i> Rafinesque, 1810              | LC | 137 | fishing nets/ gill and trammel nets/octopus and fish traps | Entanglement/catches in DFG | 6D/1W | LR  | Houard et al., 2012;<br>Erzini et al., 1997 <sup>+</sup> ;<br>Erzini et al., 2008 <sup>+</sup> |
| <i>Scorpaena porcus</i> Linnaeus, 1758                | LC | 5   | fishing nets   | entanglement                | 6D    | LR  | Houard et al., 2012  |
| <i>Scorpaena scrofa</i> Linnaeus, 1758                | LC | 3   | fishing nets/debris  | refuge/entanglement         | 6D/6F | LR  | Houard et al., 2012;<br>Angiolillo et al., 2015  |
| <i>Scorpaenichthys marmoratus</i> (Ayres, 1854)       | NE | 30  | derelict fishing nets                                      | entanglement                | 7O    | LR  | Good et al., 2010  |
| <i>Sebastapistes conioarta</i> Jenkins, 1903          | NE | 1   | fishing gear   | refuge/substrate            | 7N    | LR  | Donohue et al., 2001   |
| <i>Sebastes caurinus</i> Richardson, 1844             | NE | 3   | derelict fishing nets                                      | entanglement                | 7O    | LR  | Good et al., 2010  |
| <i>Sebastes emphaeus</i> (Starks, 1911)               | NE | 4   | derelict fishing nets                                      | entanglement                | 7O    | LR  | Good et al., 2010  |
| <i>Sebastes maliger</i> (Jordan & Gilbert, 1880)      | NE | 6   | derelict fishing nets                                      | entanglement                | 7O    | LR  | Good et al., 2010  |
| <i>Sebastes melanops</i> Girard, 1856                 | NE | 50  | derelict fishing nets                                      | entanglement                | 7O    | LR  | Good et al., 2010  |
| <i>Sebastes</i> spp.                                  | NE | 74  | derelict fishing nets                                      | entanglement                | 7O    | LR  | Good et al., 2010  |
| <i>Serranus baldwini</i> (Evermann & Marsh, 1899)     | LC | 1   | plastic bottle   | refuge                      | 1A    | UVC | Present work   |
| <i>Serranus cabrilla</i> (Linnaeus, 1758)             | LC | 18  | gill and trammel nets/octopus and fish traps               | catches in DFG              | 1W    | LR  | Erzini et al., 1997 <sup>+</sup> ;<br>Erzini et al., 2008 <sup>+</sup>                         |

|  |    |     |  |                       |       |     |  |
|--|----|-----|--|-----------------------|-------|-----|--|
| <i>Serranus hepatus</i> (Linnaeus, 1758)         | LC | -   | plastic bottles, glass jars                  | substrate             | 6E    | LR  | Katsanevakis et al., 2007  |
| <i>Serranus</i> spp.                             | NE | 2   | gill nets                                    | catches in DFG        | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>                                       |
| Sparidae   | NE | 1   | derelict crab pots                           | entanglement          | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014                            |
| <i>Sparisoma axillare</i> (Steindachner, 1878)   | DD | 2   | derelict gillnets/plastic collar             | entanglement          | 1T/1Q | LR  | Adelir-Alves et al., 2016;<br>Nunes et al., 2017                       |
| <i>Sparisoma frondosum</i> (Agassiz, 1831)       | DD | 1   | fishing gear                                 | refuge                | 1A    | UVC | Present work   |
| <i>Sparisoma rubripinne</i> (Valenciennes, 1840) | LC | 3   | derelict fishing traps                       | catches in DFG        | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>                                      |
| <i>Sparisoma viride</i> (Bonnaterre, 1788)       | LC | 28  | derelict fishing traps                       | catches in DFG        | 3C    | LR  | Renchen et al., 2014 <sup>+</sup>                                      |
| <i>Sphoeroides greeleyi</i> Gilbert 1900         | LC | 1   | derelict fishing gear                        | catches in DFG        | 1A    | UVC | Present work   |
| <i>Sphoeroides spengleri</i> (Bloch, 1785)       | LC | 1   | derelict fishing gear                        | catches in DFG        | 1A    | UVC | Present work   |
| <i>Spondyliosoma cantharus</i> (Linnaeus, 1758)  | LC | 4   | gill nets/octopus and fish traps             | catches in DFG        | 1W    | LR  | Erzini et al., 1997 <sup>+</sup> ;<br>Erzini et al., 2008 <sup>+</sup> |
| <i>Squalus acanthias</i> Linnaeus, 1758          | VU | 110 | derelict fishing nets                        | entanglement          | 7O    | LR  | Gilardi et al., 2010; Good et al., 2010                                |
| <i>Stegastes fuscus</i> (Cuvier, 1830)           | LC | 9   | plastic bottle/ derelict fishing gear        | refuge/catches in DFG | 1A    | UVC | Present work   |
| <i>Stegastes pictus</i> (Castelnau, 1855)        | NE | 1   | fishing gear                                 | refuge                | 1A    | UVC | Present work   |
| <i>Stegastes</i> sp.                             | NE | 1   | toilet                                       | refuge                | 1H    | PD  | Present work   |
| <i>Stegastes variabilis</i> (Castelnau, 1855)    | NE | 2   | plastic                                      | refuge                | 1A    | UVC | Present work   |
| <i>Stenotomus chrysops</i> (Linnaeus, 1766)      | NT | 1   | derelict crab pots                           | entanglement          | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014                            |
| <i>Symphodus bailloni</i> (Valenciennes, 1839)   | LC | 27  | gill and trammel nets/octopus and fish traps | catches in DFG        | 1W    | LR  | Erzini et al., 1997 <sup>+</sup> ;<br>Erzini et al., 2008 <sup>+</sup> |
| <i>Symphodus</i> spp.                            | NE | 7   | gill nets                                    | catches in DFG        | 1W    | LR  | Erzini et al., 1997 <sup>+</sup>                                       |
| <i>Symphodus mediterraneus</i> (Linnaeus, 1758)  | LC | -   | octopus and fish traps                       | catches in DFG        | 1W    | LR  | Erzini et al., 2008 <sup>+</sup>                                       |
| <i>Taenianotus triacanthus</i> Lacepède, 1802    | NE | 1   | fishing gear                                 | refuge/substrate      | 7N    | LR  | Donohue et al., 2001   |
| <i>Tautoga onitis</i> (Linnaeus, 1758)           | VU | 13  | derelict crab pots                           | entanglement          | 1C    | LR  | Havens et al. 2011;<br>Bilkovic et al. 2014                            |

|  |    |    |                       |                  |    |    |   |
|--|----|----|-----------------------|------------------|----|----|---|
| <i>Tautogolabrus adspersus</i> (Walbaum, 1792)       | LC | 1  | derelict crab pots    | entanglement     | 1C | LR | Havens et al. 2011;<br>Bilkovic et al. 2014 |
| Tetraodontidae                                       | NE | 1  | derelict crab pots    | entanglement     | 1C | LR | Havens et al. 2011;<br>Bilkovic et al. 2014 |
| <i>Trachurus trachurus</i> (Linnaeus, 1758)          | LC | 18 | gill and trammel nets | catches in DFG   | 1W | LR | Erzini et al., 1997 <sup>+</sup>            |
| <i>Trinectes maculatus</i> (Bloch & Schneider, 1801) | LC | 1  | derelict crab pots    | entanglement     | 1C | LR | Havens et al. 2011;<br>Bilkovic et al. 2014 |
| <i>Trysopterus luscus</i> (Linnaeus, 1758)           | NE | 5  | gill nets             | catches in DFG   | 1W | LR | Erzini et al., 1997 <sup>+</sup>            |
| Unidentified cardinalfish                            | NE | 1  | fishing gear          | refuge/substrate | 7N | LR | Donohue et al., 2001                        |
| Unidentified eel                                     | NE | 1  | fishing gear          | refuge/substrate | 7N | LR | Donohue et al., 2001                        |
| Unidentified goby                                    | NE | 1  | glass bottle          | refuge           | 1B | CS | Present work                                |
| Unidentified   | NE | 72 | gill and trammel nets | catches in DFG   | 1W | LR | Erzini et al., 1997 <sup>+</sup>            |
| Unknown spp.   | NE | 11 | derelict crab pots    | entanglement     | 1C | LR | Havens et al. 2011;<br>Bilkovic et al. 2014 |

\* Categories IUCN Red List = NE – Not Evaluated; DD – Data deficient; LC – Least Concern; NT – Near threatened; VU – Vulnerable; EN – Endangered; CR – Critically endangered.

\*\* Derelict fishing gear = DFG

# Information source = UVC – Underwater visual census; PD – Photographic Database; CS – Citizen Science; LR – Literature Review; Social Media – SM.

<sup>+</sup> Experimental study

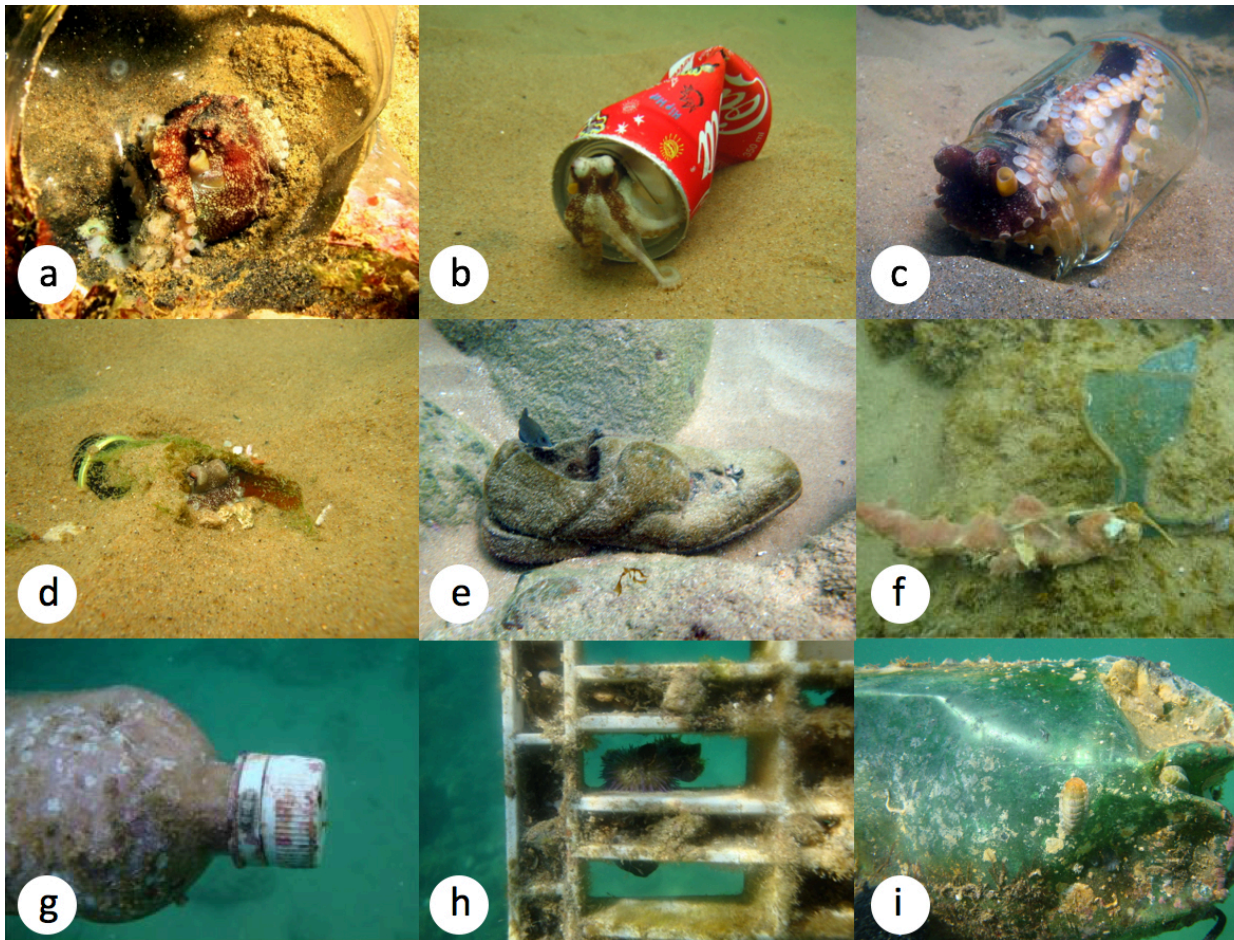
### List of photographic Databases and Social Media/Newspaper (accessed between February and December, 2017)

The following image databases were consulted and/or contributed with information from photographs and videos accessed directly or indirectly through stock photo websites, historical archives and published sources. They are listed in alphabetic order the photographers and databases: Carl Johan Nilsson/Marine Photobank; Christian Loader/ScubaZoo; Core Sea Organization; David Burdick/Marine Photobank; Dianne, 2011; Howard Peters 2008/Marine Photobank; John Turn/INaturalist, Justin Hofman/Wildlife Photographer of the Year; Kay Wilson/Marine Photobank; Leonardo Merçon/Instituto Ultimos Refugios in BBC; L. Juskanicova/Observadoresdelmar; Lemon, T.Y./Reefbuilders.com; Natalia

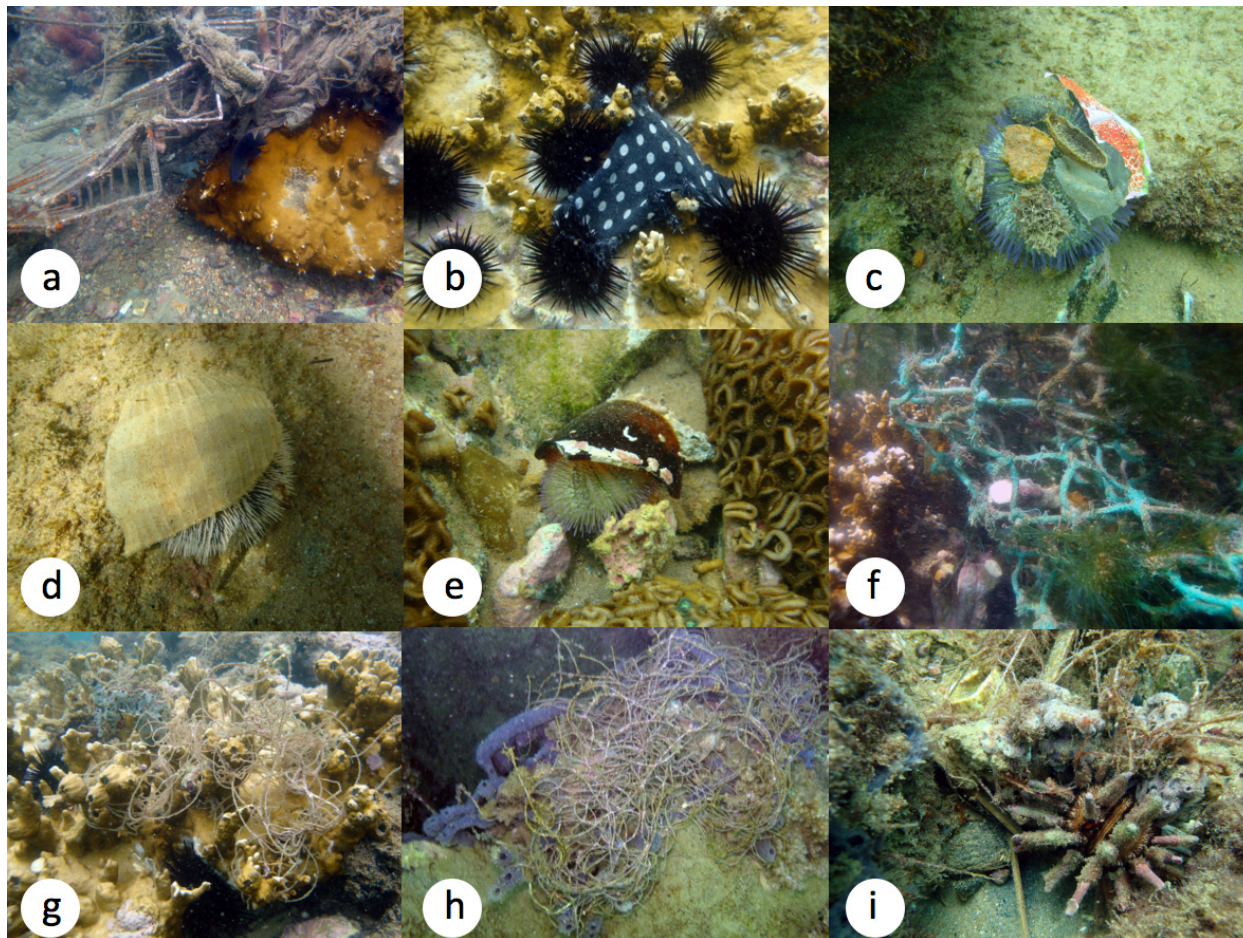
Semko/Marine Photobank; OceanwideImages; R. Groeneveld/Diverosa; Sijmon de Waal/Marine Photobank; Stephanie Lennox/Marine Photobank; Tony Wu/TonyWublog; Wolcott Henry 2005/Marine Photobank.

**Supplemental Figures**

**Figure S1.** Interactions between reef species and ML: (a-e) refuge; (f-i) substrate.



**Figure S2.** Interactions between reef species and ML: (a-e) covering/smothering; (f-i) entanglement.



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