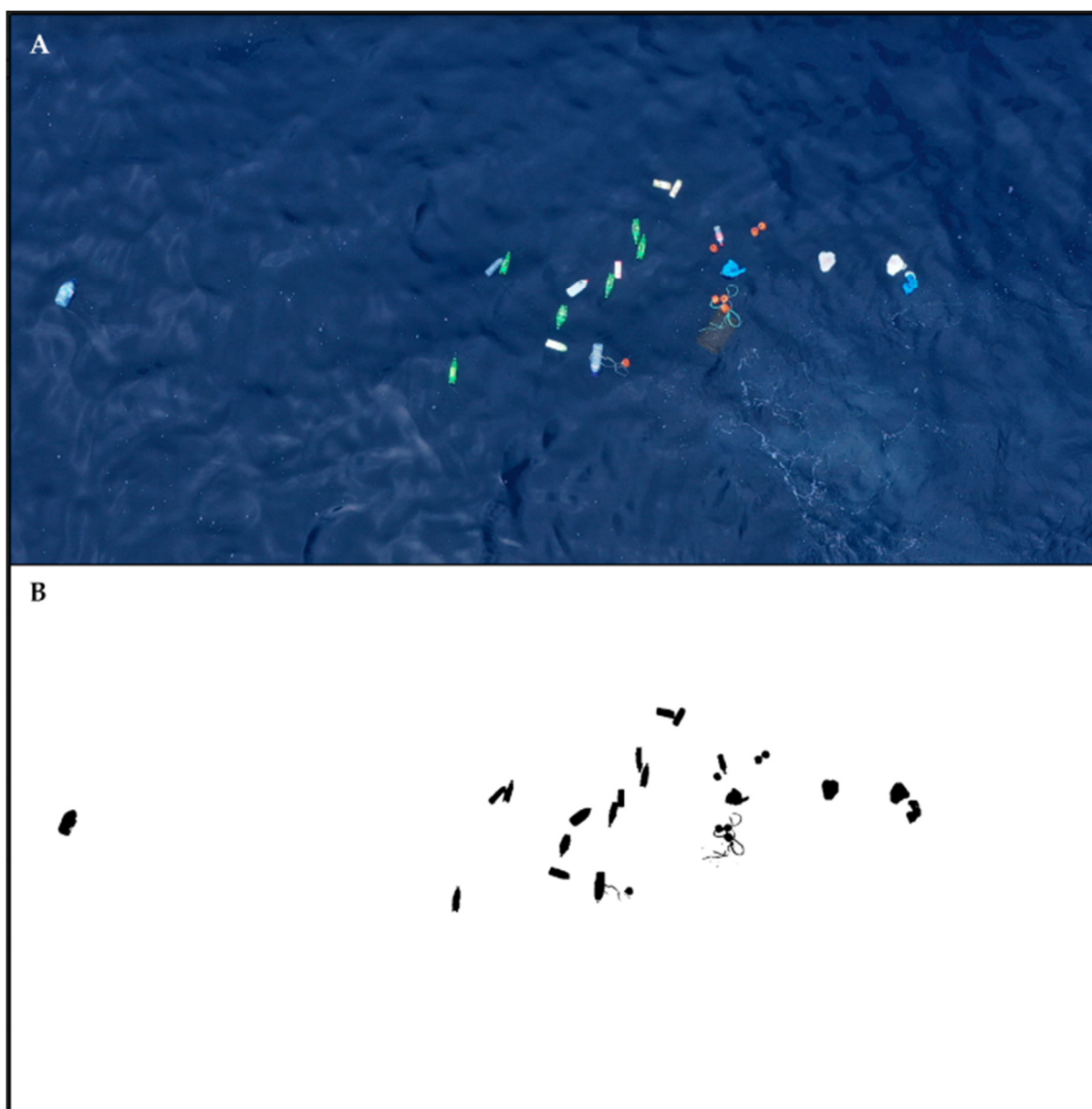


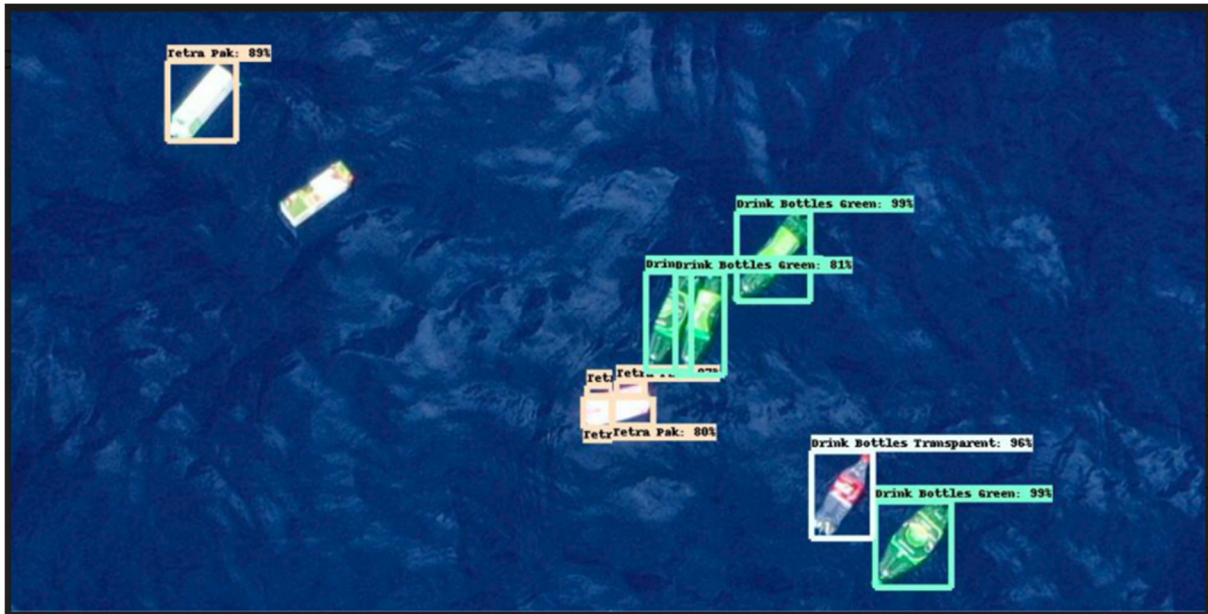
# **Supplementary Materials S2**

### Pixel-based colour analysis.



**Figure S1.** A) original processed image from Blue Set, and B) Pixel-based detection of floating debris using colour difference to generate binary image and estimate the proportion of floating debris pixels (%).



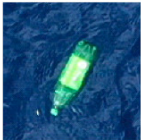
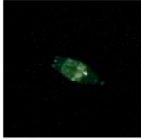



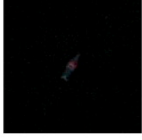









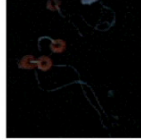
Convolutional Neural Networks (CNNs) for automated object detection.



**Figure S2.** Example of automated classification and object recognition using CNN.

## Categories of Classification.

**Table S1.** Floating litter category classes used in image annotation and automated object classification.

Name	Description	Blue Set Image (150x150 pixels)		Dark Set Image (150x150 pixels)	
Cleaner Bottles - Containers	Cleaner Bottles and Containers. Artificial polymer materials. Monitoring Guidance for Marine Litter in European Seas.				
Drink Bottles – Green	Green drink Bottles. Artificial polymer materials. Monitoring Guidance for Marine Litter in European Seas.				
Drink Bottles – Transparent	Transparent drink bottles. Artificial polymer materials. Monitoring Guidance for Marine Litter in European Seas.				
Drink Bottles – Large (>5L)	Large drink bottles, more than 5L. Artificial polymer materials. Monitoring Guidance for Marine Litter in European Seas.				
Tetra Pak	Tetra Brik Aseptic Packaging Components (polyethylene, aluminum, paper). Monitoring Guidance for Marine Litter in European Seas.				
Plastic Bags	Plastic Bags. Artificial polymer materials. Monitoring Guidance for Marine Litter in European Seas.				
Other Containers	Other Containers. Diferentes tipos of marine litter (plastic or others materials).				
Floating Fishing Gear	Floating Fishing Gear: nets, lines, buoys, etc				
Other Floating Debris	Other Floating Debris. Represents something, a good image but you don't know what it is.	