

## **Analysing video and image material from vulnerable marine ecosystems in the deep-sea**

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Cold-water coral reefs, and sponge grounds are seen as Vulnerable Marine Ecosystems (VMEs). Due to the development of techniques, including Remotely Operated Vehicles (ROVs) and towed cameras, the research to these VMEs reefs has been increased since the 20th century. The use of image footage is well adapted in these cases and it is less destructive than a trawl sample. Scientists are forced to develop methodologies for optimizing data from different sources of images (depending on equipment type, camera type, etc.). Within the European fp7-funded project CoralFISH, a methodology for analysing image footage has been developed by a cooperation of IFREMER and other CoralFISH partners. Because the requirements of existing video annotation software for analysing image footage did not reached the needs of the project, IFREMER has developed the software COVER. It allows the user to load navigation files, images and digital videos. A flexible interface is made based on knowledge tables that contain information about subjects of interest, such as species, substrate and habitat type and anthropogenic impact. Some features of Cover will be introduced into the existing software Adelle (IFREMER).

Here we present the methodology and the use of the software using an example of reefs in the Bay of Biscay.