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Underwater biotope mapping: automatic processing of underwater video data

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The task of analysing the inhabitants of the underwater world is applicable to a wide range of applied problems: construction, fishing, and mining. Currently, this task is applied on an industrial scale by a rigorous review done by human experts in the field of underwater life. In this work, we present a tool that we have created that allows us to significantly reduce the time spent by a person on video analysis. Our technology offsets the painstaking video review task to AI, creating a shortcut that allows experts to only verify the accuracy of the results. To achieve this we have developed an observation pipeline by dividing the video into frames; assessing their degree of noise and blurriness; performing corrections via resolution increase; analysing the number of animals on each frame; building a report on the content of the video, and displaying the obtained data of the biotope on the map. This greatly reduces the time spent analysing underwater video data.

Agreement to place

Participants agree to post their abstracts and presentations online at the workshop website. All materials will be placed in the form in which they were provided by the authors

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