

Poster

A NEW TOOL FOR TESTING TRANSMITTER'S IMPLANTATION IMPACT ON FISH: THE COMPUTERIZED VIDEO TRACKING

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The progress made the last decades in telemetry allowed scientists to gather data on fish movement that would be inaccessible via other methods. However, the validity of the result hinges on the assumption that the transmitter does not modify fish's movements. If many studies have considered the effects of tagging on physiological indicators - like the effects on the growth, on the buoyancy compensation, on the breathing or heart rates- very few have regarded the effects on fish's social interactions.

In this study, a computerized video tracking system, based on digital imaging techniques was used to study the impact on the behaviour of fish with transmitters implanted in the peritoneal cavity.

Sixteen goldline (*Sarpa salpa*) were tested with transmitter of two different sizes: 2 or 6% of the fish's body weight. The distance moved (DM), the velocity (V), the social interaction reflected by the distance between two animals (DA) and the time spent in the different zones of the tank (TZ) were examined. We found no significant differences between the studied parameters of control and tagged fish with the tag representing 2% of the body weight. But the population with heavier transmitters was severely affected by the presence of the transmitter. If the use of light transmitters seems to be appropriate on the goldline, we strongly suggest to not use for this species transmitters heavier than 2% of the fish's weight.

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