SCIENTIFIC COMMITTEE
THIRTEENTH REGULAR SESSION

Rarotonga, Cook Islands
9 – 17 August 2017

Automated visual detection of captures from EM video

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The collection of robust and comprehensive catch data is critical for fisheries management to ensure the ongoing sustainability and vitality of the world's oceans. The traditional use of human observers is gradually being over-taken by cameras (electronic monitoring, EM) largely due to costs and safety. Electronic-monitoring involves video recording hours and hours of fishing operations that is then viewed in the office by analysts. This method is labour intensive and expensive, and even though 100% of a fishing trip may be recorded, typically only 10% of the footage is actually examined.

The move to electronic monitoring remains costly for industry and thus only provides a snapshot of the actual catch coming over the side. Greater coverage, rapid analysis, reduced costs and the subsequent re-assurance (for fishery managers and eNGOs alike) that fisheries are fully observed can be provided by automated visual detection and species identification of capture events from on vessel camera footage. The CSIRO Team *Marine Visual Technologies* is using recent advances in machine learning algorithms to develop enhanced software products that will enable footage to be scored in a fraction of the time of on-land observers, thus allowing full coverage across large fleets. We hope to have our first event detection product for trial in 2017. We are happy to talk to fishery regulators, EM companies, industry and eNGO representatives about our products. Please visit our website and contact us at marinevistech.com for more information and updates on our progress.

MARINE
VISUAL TECHNOLOGIES

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