

## **Introducing electronic data logging to the South African and International commercial fishing industry:**

Amos Barkai

OLRAC, Silvermine House, Steenberg Office Park, Tokai 7945, Cape Town, South Africa

Fisheries management is continually frustrated by the lack, or poor quality, of critical data on fishing operations. While quantitative methods for managing fisheries have developed considerably, the quality of available data prevents advances in fisheries management. With the advent of satellite communication systems and broadband on larger vessels, the transmission of reports from fishing vessels has proved manageable and it is clear that more modern means should be utilized for the collection and reporting of data from active fishing operations.

In response, OLRAC, a South African company, developed a fisheries data-logging software, Olfish, capable of collecting, analyzing, plotting, mapping, reporting, tracing and transmitting all data related to fishing operations. Data can be compressed, encrypted and digitally authenticated prior to transmission to the company or management authorities. Olfish can be used by skippers, fleet/company managers, scientists, observers, and compliance inspectors and fisheries management authorities. It includes a dynamic report generator, eliminating the need for paper-logbooks.

Olfish includes an onboard version (Olfish Dynamic Data Logger: Olfish-DDL), a shore component, and a web-based data management hub (Olfish Reports Management System: Olfish-RMS). Olfish-DDL captures data in real-time and/or in post-event mode. It can read GPS input and incorporates GIS capabilities for viewing of vessel movements and other operational data. Users can collect any type of data in any form, (images, video-clips, numerical and alphanumeric fields, free-text, date, time, location, etc).

Olfish-DDL is now installed on numerous vessels around the world, amongst them 12 South African vessels. The South Coast Rock Lobster Industry in South Africa implements an Olfish-DDL solution, allowing it to complement /replace many of the data collection tasks normally the responsibility of the Fishing Management Authorities. As such, Olfish-DDL has can convert the entire national fishing fleet into a large-scale survey tool capable of dramatically improving fishery management in South Africa.