



**COMMISSION**  
**THIRTEENTH REGULAR SESSION**  
Denarau Island, Fiji  
5 – 9 December, 2016

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**FIJI LONGLINE ELECTRONIC MONITORING PROJECT OVERVIEW**

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**WCPFC13-2016-OP19**  
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**Submitted by ISSF**

# Fiji Longline Electronic Monitoring Project – Overview

**BUMBLE BEE**  
**SEAFOODS**



**F.C.F. FISHERY** CO., LTD.

Nadi, Fiji  
December 2016

FCF and Bumble Bee partnered to fund a project installing Satlink monitoring systems on ten longliners operating out of Fiji with review of vessel trips through Digital Observer Services (DOS).

### Objectives

- Share belief that electronic monitoring is the most effective and realistic way to increase observer coverage on longline vessels, desire to promote technology and process with boat owners to increase their comfort and trust.
- Continue to validate the technology and process and help improve review process where able
- Gain visibility into boats operations
- Provide feedback to boat operators
- Compile catch data
- Expand project to other locations

## Installations completed on six Chinese flagged and four Fijian flagged vessels between September 2015 and April 2016

### Project summary and current status

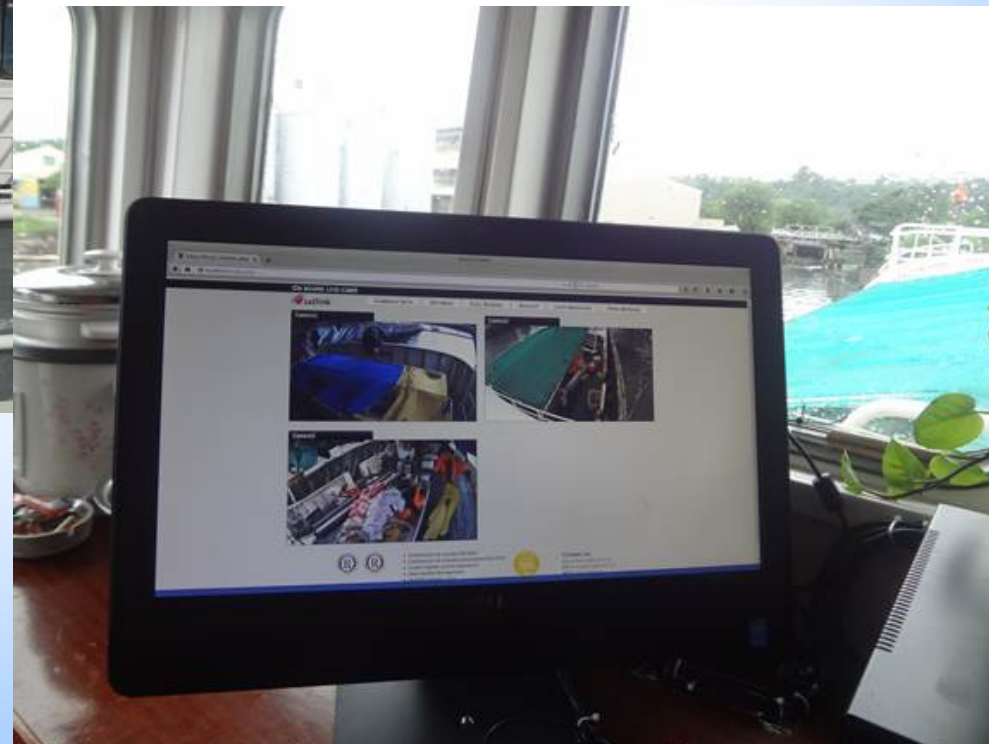
- Three cameras, the system and GPS positioning on each vessel take 2-3 days to install
- Trips are recorded on hard drives and upon return to port, hard drives are removed and sent to DOS for review
- DOS provides written detailed reports on tuna and other catches using the SPC/FFA regional longline observer catch monitoring forms
  - Detailed reporting by set with accompanying time stamp and photos of each landing
  - Capture tuna species and length
  - Capture bycatch species (length on occasion) as well as condition on landing and disposition (discard alive, retained etc)
  - Full location and time tracking of vessels
- We have received trip reports from eleven trips thus far

# Satlink vessel installations include communication hardware and camera display for captain

Inmarsat IsatData Pro



Camera repeater



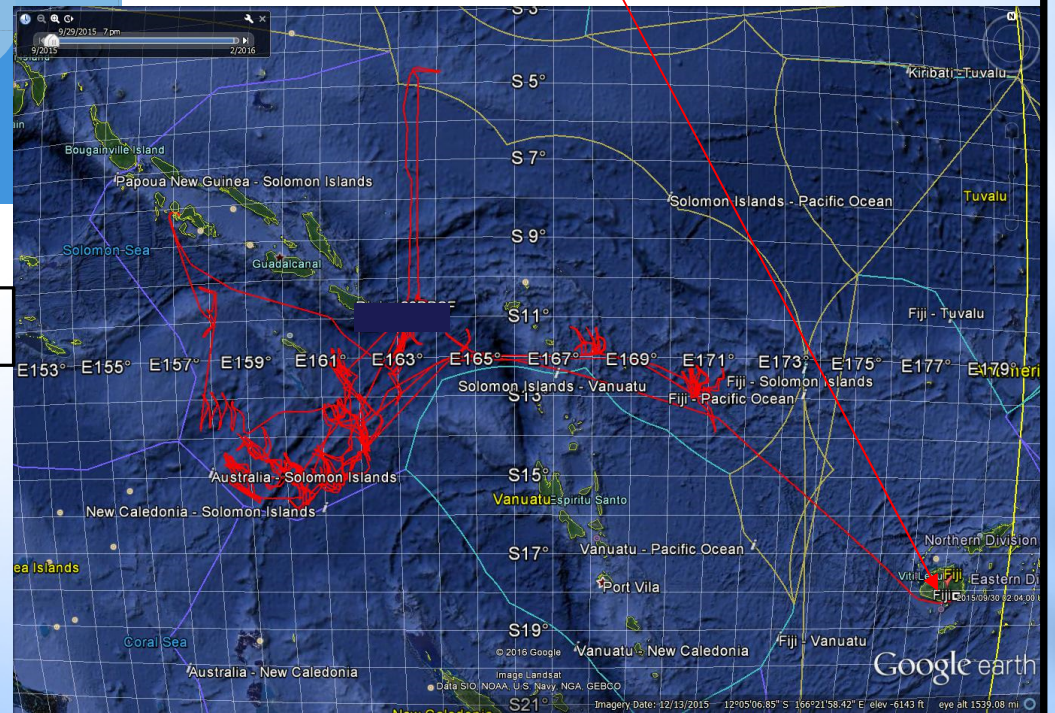


# The Satlink system and application provides for real time and historic tracking of vessels



Historical vessel track data available for export.

Real time data with 30 day vessel track.



Camera one is pointed aft and focused on line setting area

Installed camera



Camera view



Camera two is focused on the hauling area and also provides a view of species in the water along side the boat

Installed camera



Camera view





Camera three is focused on the deck and provides a view of retained species and disposition

Installed camera

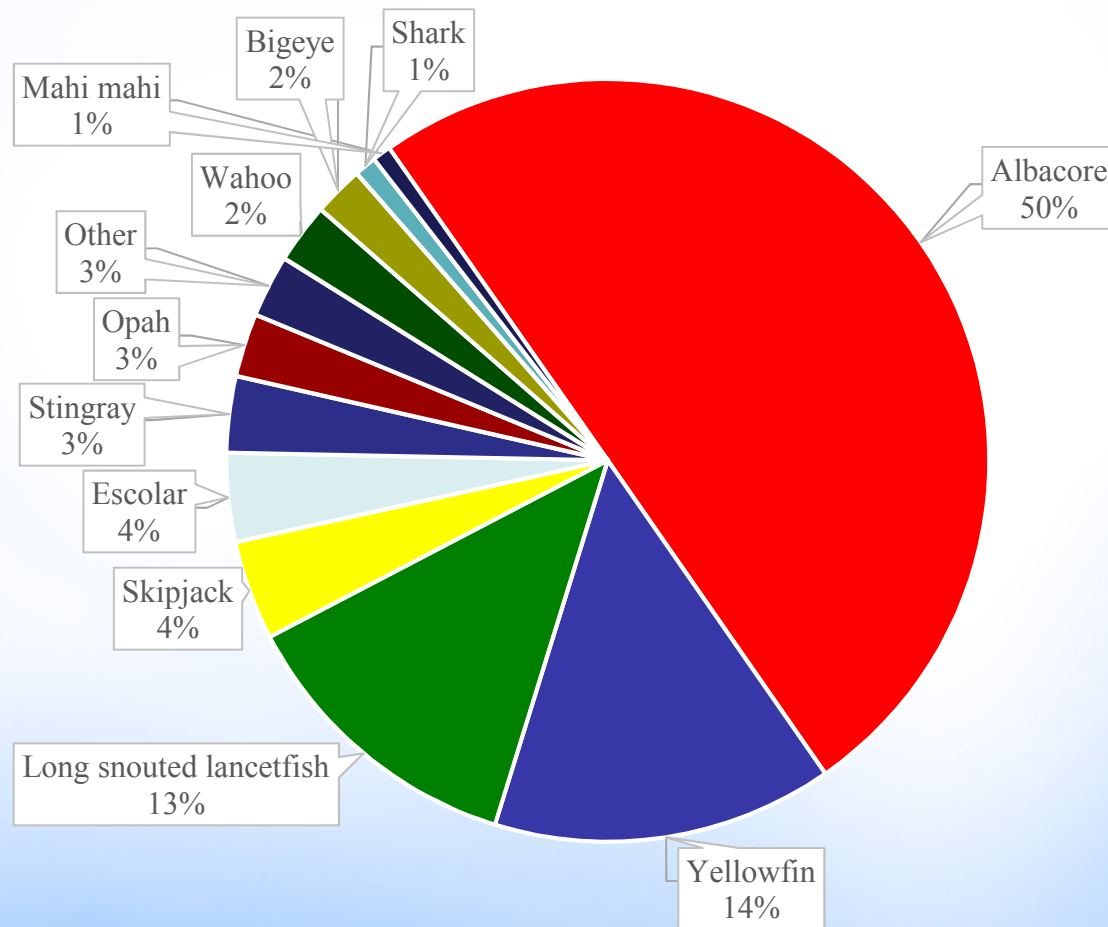


Camera view



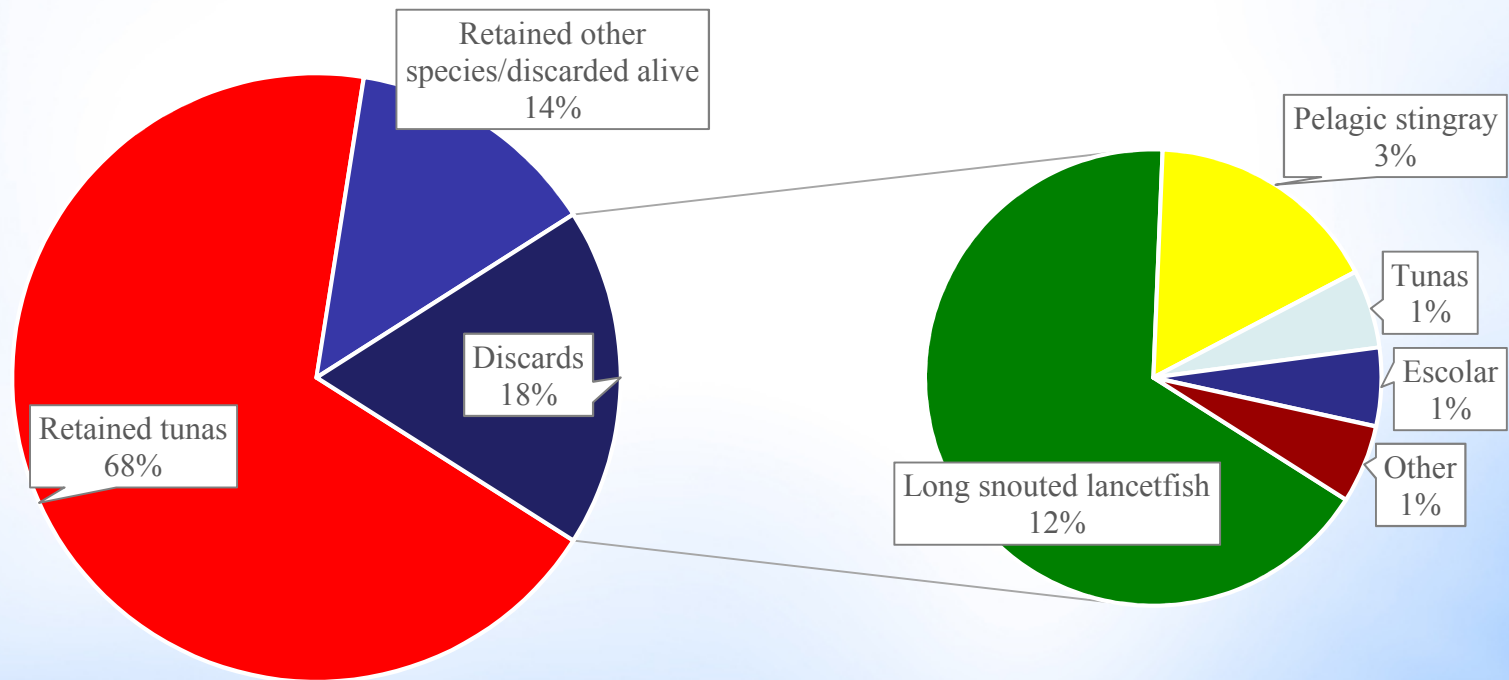
Aggregated data from the eleven trip reports detailing 419 sets and ~1.2MM hooks show about 70% of landings are tunas. Long snouted lancetfish is the primary bycatch species. Sharks represent less than 1% with half of those released alive.

### Catch Composition (37,976 pieces)



About 82% of catch (by piece) is retained or discarded alive. Main retained species other than tuna include opah, wahoo, mahi, escolar, marlin, sailfish, spearfish and swordfish. Over 80% of the discards are long snouted lancetfish and pelagic stingrays.

### Catch composition (37,976 pieces)



## Initial learnings and looking ahead

- Technology works and reliable, need to regularly clean camera lens for optimal results
- Support efforts to speed up and automate the review process
- We are looking to expand project to a pilot in Indian Ocean
- Fully support RFMO development of minimum equipment standards and review process to accept EM for LL observation
- Continue to build data set on catch composition