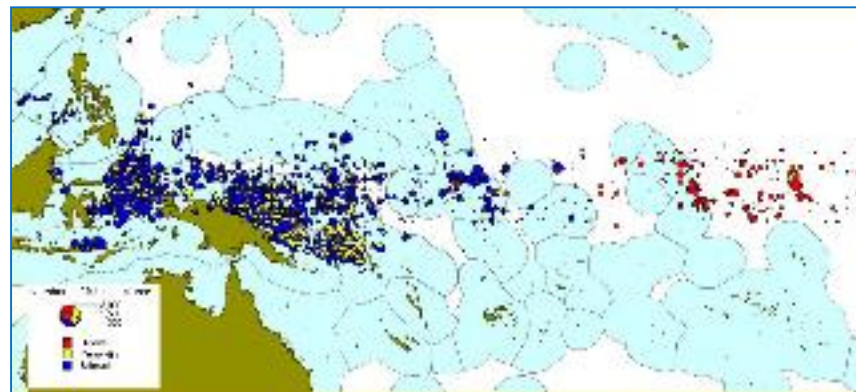
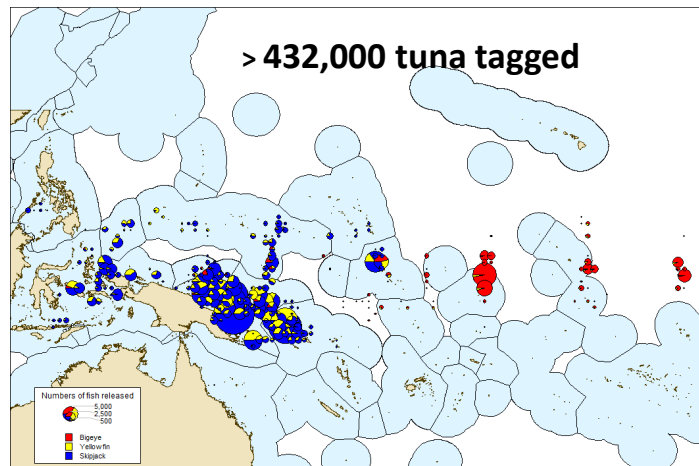


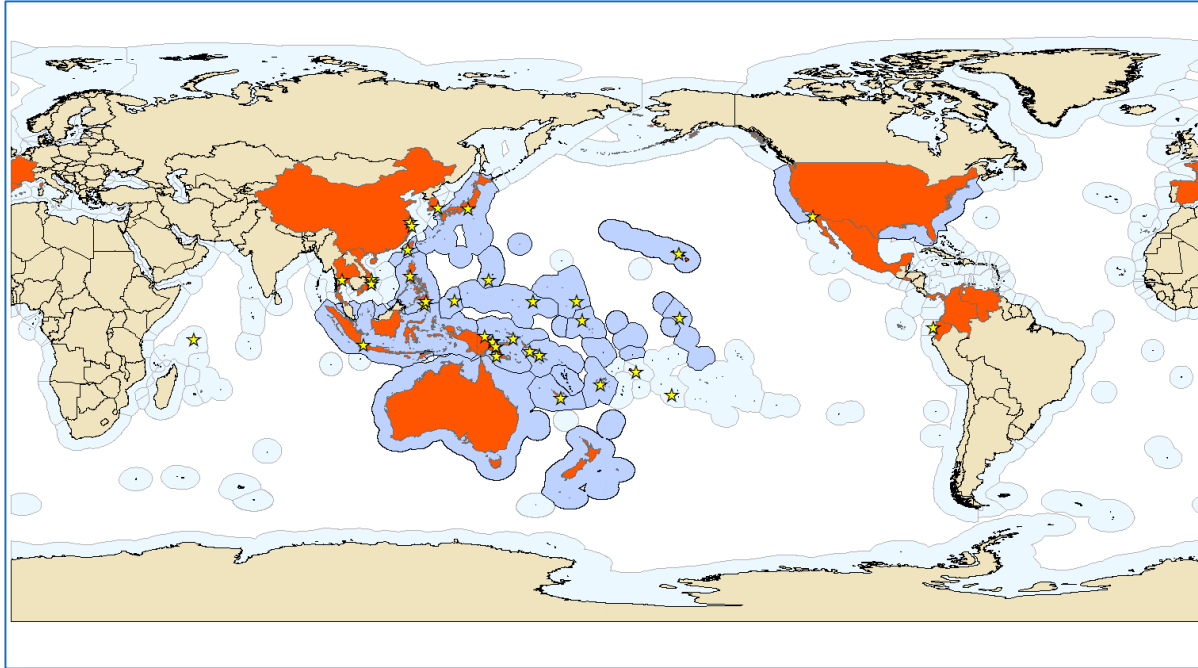
TAG RECOVERY IN THE WESTERN AND CENTRAL PACIFIC OCEAN

SPC-FAME-OFP

IATTC TAGGING WORKSHOP
JANUARY 28-30 2019- LA JOLLA

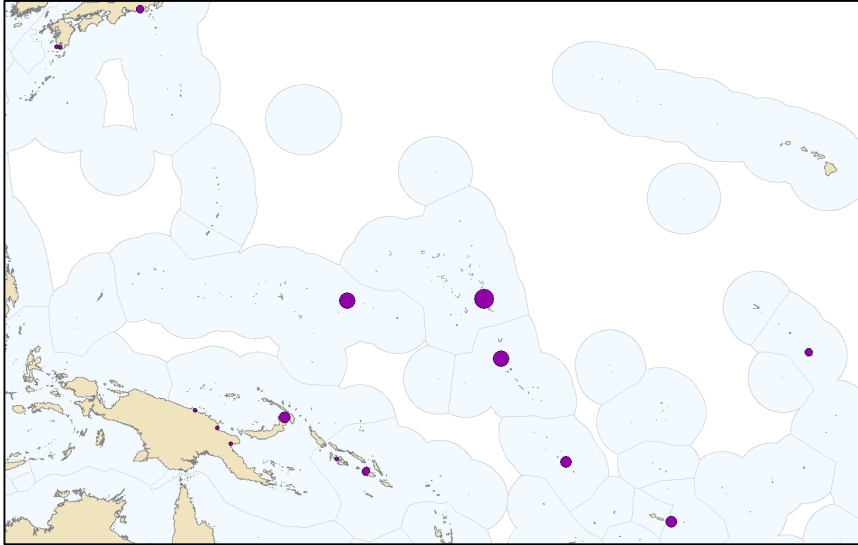


> 78,600 tag recoveries (18.1%)

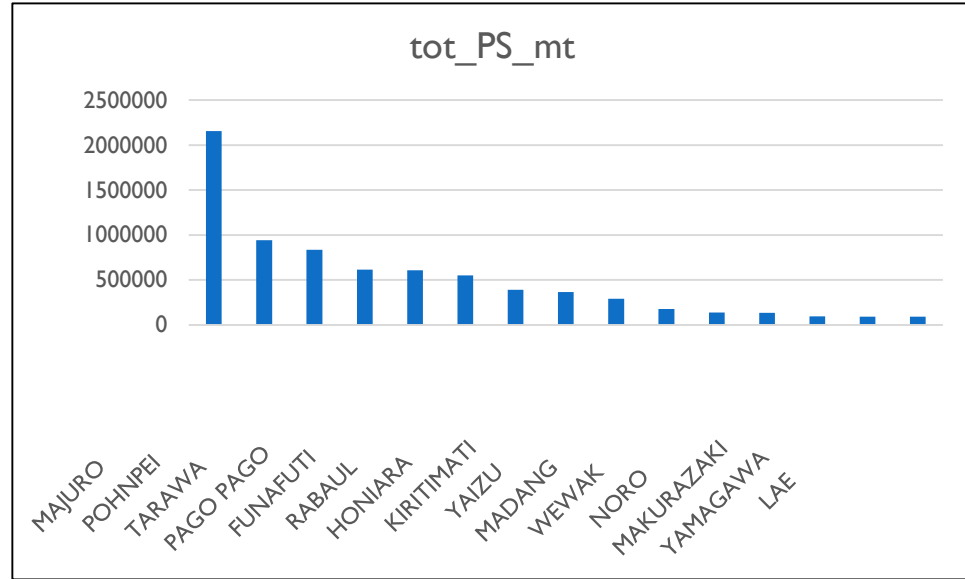


PTTP countries of reporting (orange colour) and countries of recapture (eez in blue)

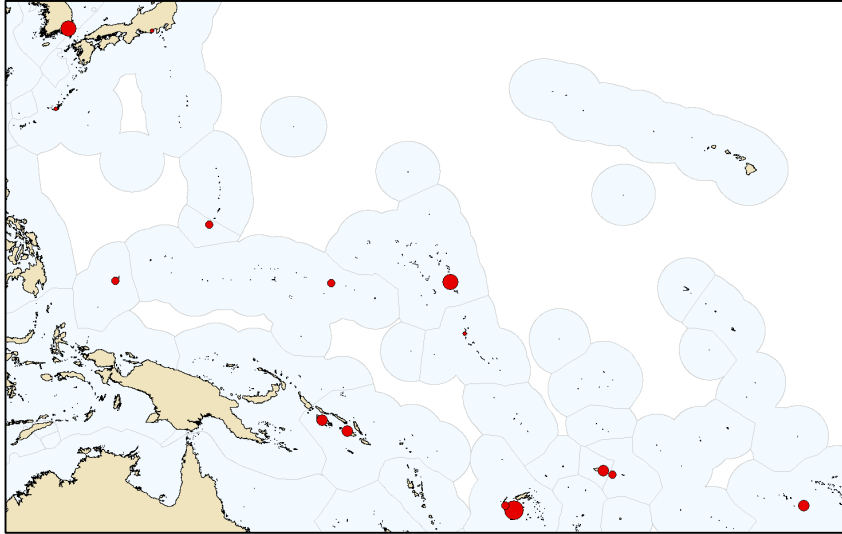
UNLOADING PORTS: PS



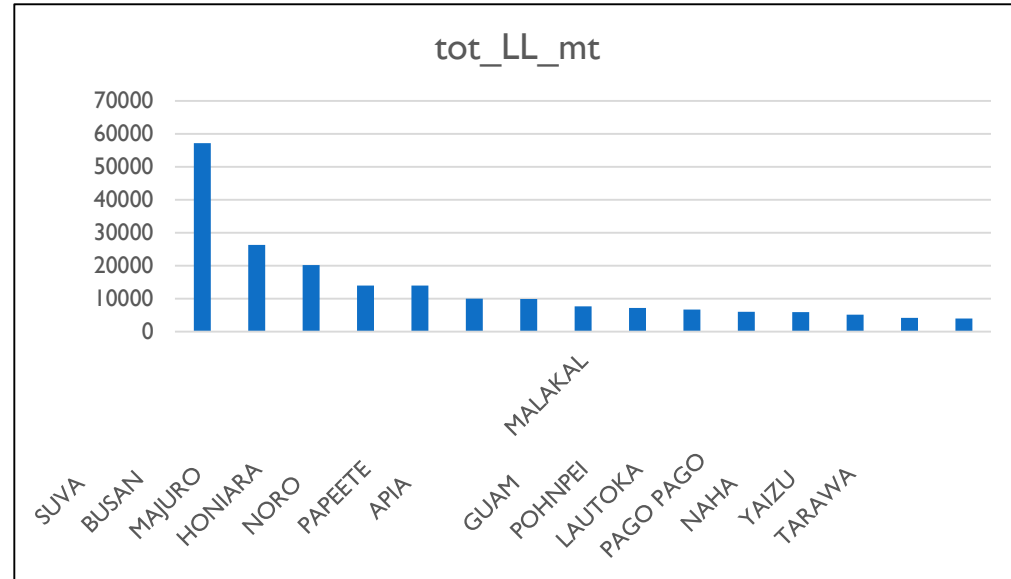
PURSE SEINE

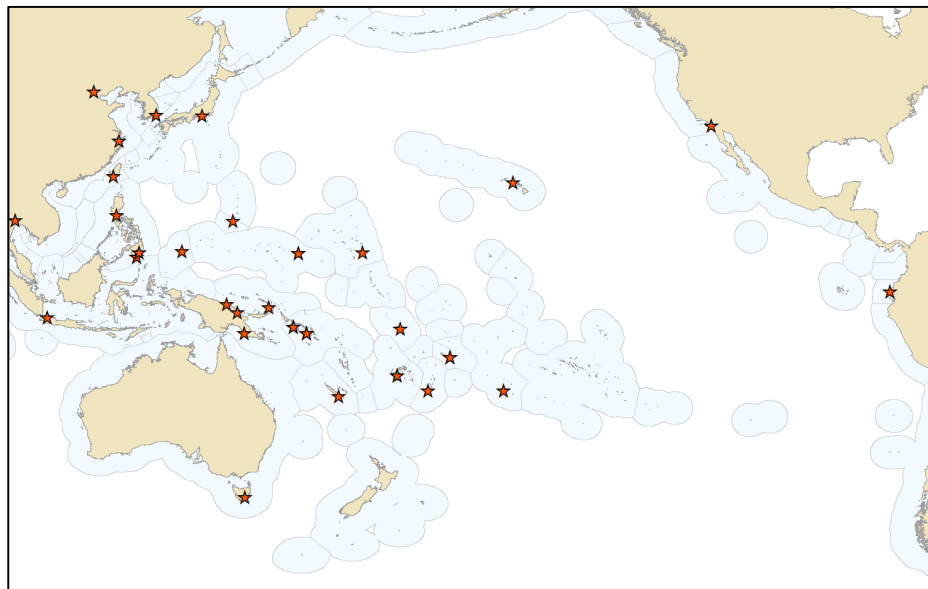


UNLOADING PORTS: LL



LONG LINE

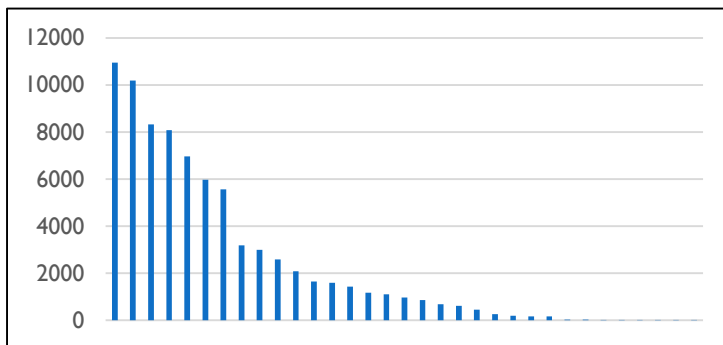




TROs



Active TROs: 34



TRO_name
Soltai Fishing SOLOMON, Noro
TDF THAILAND, Samutsakom
University PHILIPPINES, General Santos
IATTC USA, San Diego
RD Fishing PNG, Vidar
RCCF INDONESIA, Jakarta
NFA PNG, Wewak
NFA PNG, Lae
NRISF JAPAN, Shimizu
NFA PNG, Madang
Frabelle PNG, Lae
NMFS A.SAMOA, Pago Pago
SPC New Caledonia, Noumea
IATTC Ecuador, Manta
SST PNG, Wewak
MFMR SOLOMON, Honiara
MIMRA MARSHALL, Majuro
MFMRD KIRIBATI, Tarawa
SPC FSM, Pohnpei
NFRDI KOREA, Busan
NFA PNG, Port Moresby
NFA PNG, Rabaul
NORMA FSM, Pohnpei
BFAR PHILIPPINES, Manila
MFMRD KIRITIMATI, London
MFMR SOLOMON, Noro
SPC Solomon, Honiara
FFA SOLOMON, Honiara
IOTC SEYCHELLES
CIFFO, Pago Pago
SPC FIJI, Suva
CSIRO, Hobart
NOAA, Honolulu

RECOVERIES: THE PACIFIC SPECIFICITIES

Difficulties of retrieving accurate/complete information:

- Huge geographical area
- High degree of transshipment across wide area
- Unloading of carrier -> lack of traceability
- Language barrier
- Tags traded between vessel crew

Recovery origins:

- 44% unknown
- 27% fishing vessels
- 15% cannery
- 6% during transshipment
- 4.5% fish market and/or during unloading at port
- 3% cold storage



RECOVERIES: THE PACIFIC SPECIFICITIES

➤ In-country agreement / Fund access

- Advertise / provide reward in remote areas
 - Delay of submission of tags/data
 - Reconciliation of tag payments
 - Delays for fund replenishment
 - Maintain tagging network
- Turn over of officers / fund to maintain full-time TRO
lack of in-country supervision



RECOVERY PROCESS

- Tag recovery forms – single, multiples, canneries, envelopes, online submissions
- Tagging website
- Reward – 10\$ to 250\$ /Tshirt/Caps
- Reward posters – translated in 19 languages
- Lotteries – PH, TH
- Tag recovery manuals – for Observers, debriefers, canneries, fishing vessels
- PIRFO Training – training modules in all basic training

SPC TUNA RECOVERY FORM

Return envelope to: Mrs. Rebecca Jones, Observer Protection Programme, Secretariat of the Pacific Community, 10000 New Carlisle, New Caledonia, 98800 New Caledonia. www.spc.int/tagging

TUNA TAGGING IN THE WESTERN AND CENTRAL PACIFIC
REWARD FOR TAGS ON SKIPJACK YELLOWFIN AND BIGEYE
 HELP US TO BETTER UNDERSTAND AND MANAGE OUR TUNA RESOURCES!
 RETURN THE TAGS AND GET A REWARD – REGULAR LOTTERY FOR TAG FINDERS

Each tag has a number (written twice) and the words "SPC INT NOUVEAU REWARD - www.spc.int/tagging"

\$10 US FOR A DART TAG (YELLOW DART TAG) **\$250 US FOR AN ARCHIVAL TAG** (ORANGE OR GREEN DART TAG)

Tuna with a yellow tag will sometimes have a second dart tag. Please be careful when removing the archival tag, avoid pulling the antenna. Wash the tag and keep it in a dry place.

What to do if you catch or find a tagged fish

Record:

- the species and fork length (from upper jaw to the tail fork, as shown): **dat, not body curve length**
- the tag number (if there is an archival tag, record the number too and keep both tags together)
- date and position of capture
- fishing vessel name and gear type used
- the weight of the fish (if possible)
- finder name and full contact details

Return tags to local nearest Tag Recovery Officer (TRO). Provide recovery information at this time on recovery form or multiple tag envelope. Store multiple tags and record information / obtain recovery envelope from TRO.

SPC Pacific Tuna Tagging

YOUNA TAG? You have found a SPC tag and want to get the reward: \$10 US for a dart tag, \$250 US for an archival tag. Please provide all the information concerning the recovery of the tag using the on-line form. Recovery criteria form. You can also download the recovery paper form and send it to us with the tag paper form. Thanks for your participation.

Information for monitoring and understanding our tuna stocks

Welcome to the Pacific Tuna Tagging online information resource. The website provides up to date information on the progress of tagging experiments that have been implemented in the Western and Central Pacific Ocean to SPC.

Tag recovery
 Manual for Observers

Got Tags?

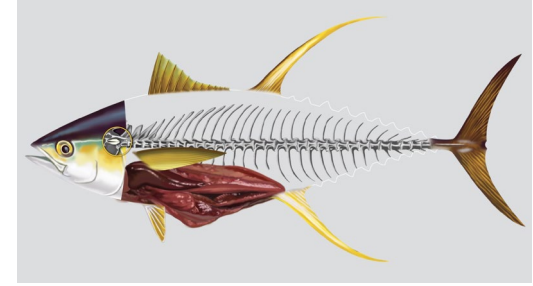
Source: 1 March 2013, SPC Pacific Tuna Tagging - www.spc.int/tagging



RECOVERY PROCESS IMPROVEMENTS



- Tag Recovery App. – stand alone & connected to other ER tools



- Specific reward – to include Bio sampling
 - Buy whole fish for LL recoveries (\$/kg)
 - Increase from 250-300USD archival tag including whole fish (PS)
- New posters to advertise App/Reward

DATA ENTRY

Database system (SQL) for entering, analysing and processing tagging information.

Linked to logsheet and VMS databases for recovery validations.

Credibility index
Validation process

Tag Recovery Data Entry

Tag Recovery Data Entry

Conventional tag: Tag type: Yellow conventional - 13cm Recovered: Yes Activity when found: Fishing Where found: Fishing vessel

Archival tag: No

Sonic tag: No

Double tag: No

Fish Information

Species: Yellowfin Reliability: Good Sex: Unknown Condition: Fresh

Length (cm): 46.0 Accuracy: Using measuring tool by Observer Quality: Good

Weight (kg): 2.0 WT accuracy: Estimated by eye WT status: Whole weight

Catch Information

Date caught: 09-Jun-13 Date found: 09-Jun-13 Date reliability: Day Valid Source: VMS

Best date: 09-Jun-13 Same as date caught

Lat: 0406.0835 Lon: 15020.198E Range: Position reliability: Minute

Best Lat: 0406.0835 Best Lon: 15020.198E Same Fishing area:

Fishery Information

SPC vessel list: Vessel name: PURPLE LILAC 888 VMS vessel list: ☐ Flag: Papua New Guinea Hatch:

Fishing method: Purse seine School type: Unassociated / Free school FAD no.:

CARRIER - Multiple vessel(s): Add/Edit vessel Delete vessel

Carrier Information vessel(s) -> carrier

Carrier name: VMS carrier list: ☐ Flag: Well number:

Date transshipment: Date reliability: Unknown Location transshipment: Lat: Lon:

Cannery Information (Cannery only)

Cannery name: Batch ID: Date unloading at cannery: Date reliability: Unknown

Finder Information

Finder name: JULIUS PAULUS Finder address: PNG FRABELLE LTD, LAE -PNG

Country of recovery: Papua New Guinea Info received at: NFA - Wewak Payment date: 20-Dec-2013

Data provided by: PNG (Frabelle) Tag returned: Y Reward paid by: NFA PNG, Wewak

Form completed by: JULIUS PAULUS Date data received at SPC: 20-Dec-2013 Cap: ☐ Tee-shirt: ☐ Cash: ☐ 10 US\$

Comments Validation notes

From [\\oche\ofp\tag\PNG 2011-2013\TRO recoveries\NFA Wewak\Imported in TagDager\Tag_recovery\Tag Recoveries+Tro Wewak+02102013. Rec since 2011.xlsx using TROTagger extraction - - Validated against logsheet: False. The tag has been received by the TRO]

