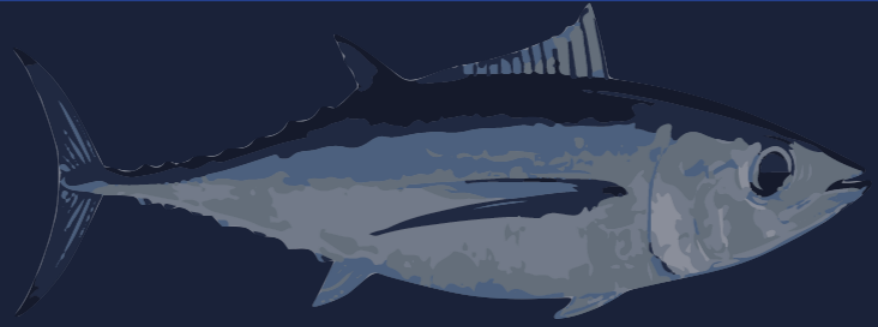
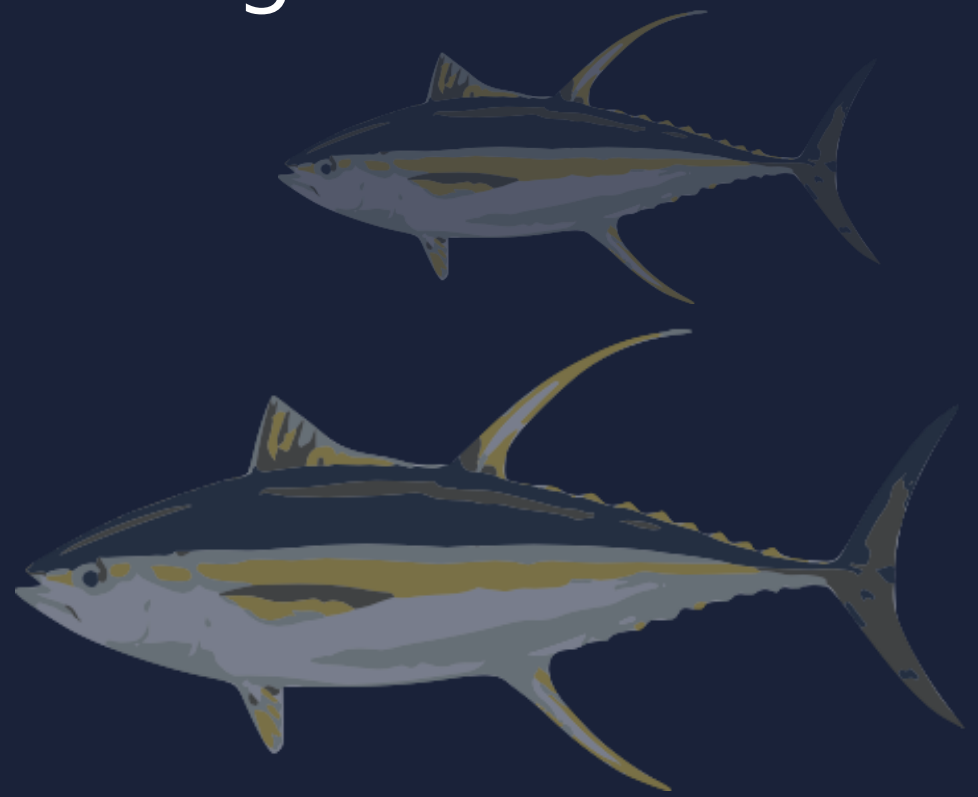


Tuna AUSTRALIA

Australian longline industry seabird mitigation



David Ellis – CEO
Phil Ravanello – Program Manager

Tuna Australia represents the interests of Australian longline fishing companies

MSC certified fishery and SBT under assessment

50% annual effort in areas below 30°S – known high seabird abundance

Continuous improvement underpinned by research and partnerships

Regulatory framework

- International Plan of Action – Seabirds
- WCPFC Seabird Conservation Management Measure
- IOTC RESOLUTION 23/07 on reducing the incidental bycatch of seabirds in longline
- Resolution to Align CCSBT's Ecologically Related Species measures with those of other tuna RFMOs
- ACAP best practice advice
- National Plan of Action for Minimising Incidental Catch of Seabirds in Australian Capture Fisheries
- National Recovery Plan Albatross and Petrels
- Commonwealth Bycatch Policy
- Seabird Threat Abatement Plan
- Albatross and Petrel Recovery Plan
- Wildlife Conservation Plan for seabirds
- AFMA Bycatch Strategy
- Bycatch Operational Guidelines
- Bycatch handling practices
- Species identification guides
- Fishery Management Arrangement Booklet
- Individual accountability principles

Seabird Mitigation

Operating requirements

Line weighting* - options

- 40g within 50cm of hook
- **60g within 3.5m of hook**
- 98g within 4m of hook

Tori Line

- Minimum tori line length 100m
- Minimum aerial extent 75m
- Dropper spacings 3.5m
- “Drogue” – 150-200m mainline
- Must carry multiple lines

Other considerations

- Non frozen baits mandated
- Night setting
- Line shooter speed
- Offal discharge
- Paired / offset tori lines

*Leaded swivels or sliding safety leads

Reporting and Management

Reporting

- Mandatory logbook reporting
- EM review 100% TEP interactions since 2015
- EM review presence / absence of tori lines
- Wildlife Interaction Report
- Seabird ID kit*
- TEP Interactions quarterly reporting publicly available

Management response

- Additional mitigations if limit TAP breached i.e. Line weighting, night setting, move on provisions, hook shielding
- Option to cease fishing / move out of seabird risk areas if seabird interactions continue
- Current WHS concerns re H1N1 Influenza “Bird Flu” limit the ability to collect feather samples

What works well in Australian longline fisheries?

AUSTRALIAN TUNA LONGLINE SECTOR MAINTAINS AN INTERACTION RATE ~0.05 BIRDS / 1000 HOOKS OVER 8-9 MILLION HOOKS

Transparency

- EM – 100% monitoring review of interactions
- VMS, Compliance inspections, education
- Mandatory reporting / Quarterly public reporting

Regulator is responsive

- Individual accountability
- Supports industry led research
- Encourages industry to self manage improvements

Commitment to seabird conservation

- Willing to participate in sea trials
- Proactively suggest improvements
- Sharing / competition amongst each other

Supportive industry association

- Research program - safety focus
- Ensure materials stored and available for use in ports
- Industry led interventions when incidents occur

Research Program

- Research assessing data sets to understand temporal and seasonal drivers of interactions
- Oceanographic sensors placed on LL gear to understand gear and wildlife interactions
- Development of artificial baits
- Addressing crew safety from seabird mitigation
- Improving current mitigation requirements to improve effectiveness, useability and address safety

Industry research

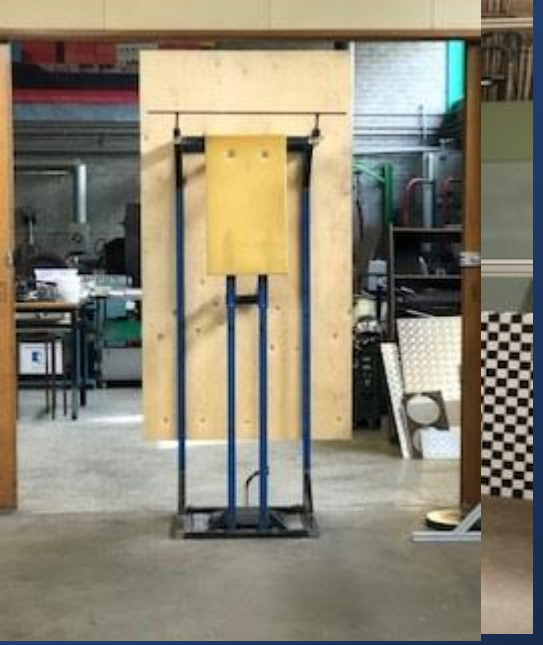
Fisheries Research and Development Corporation research partnership

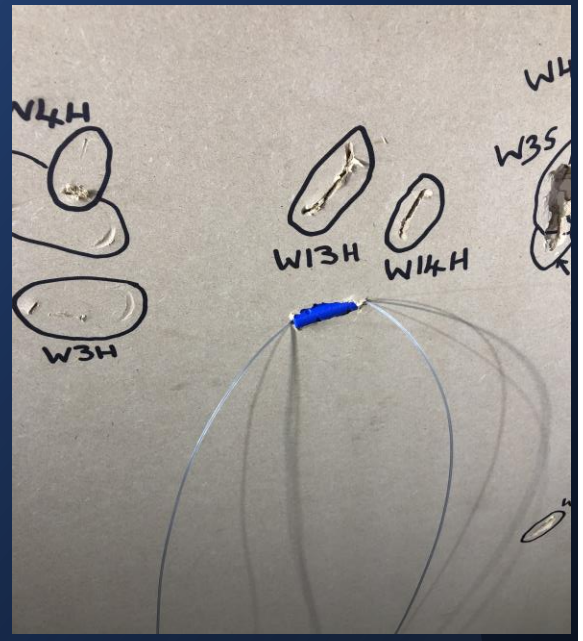
- Improved sliding safety leads – addressed handling, application and gear tangles
- Tori lines reimagined – different materials, different attachment methods, regulated spec, ACAP spec, non ACAP spec
- Best tori line design not necessarily consistent with ACAP advice…project extension will look at 7m dropper spacings, automation of deployment and retrieval, articulation of tori poles, practical implications of dual toril line systems
- Develop physical barriers to flybacks – bars and screens
- Flyback simulation testing
  - deflection and physical barrier, impacts and damage
  - New technologies before being introduced to fishers

Industry research

Fisheries Research and Development Corporation research partnership

- Testing novel line weighting approaches
- Understanding fishing drivers including boat speed, line shooter speed, environmental conditions to improve sink rates
- Live bait characteristics, performance, endurance
- Use innovative research to mitigate interactions without the use of dedicated equipment





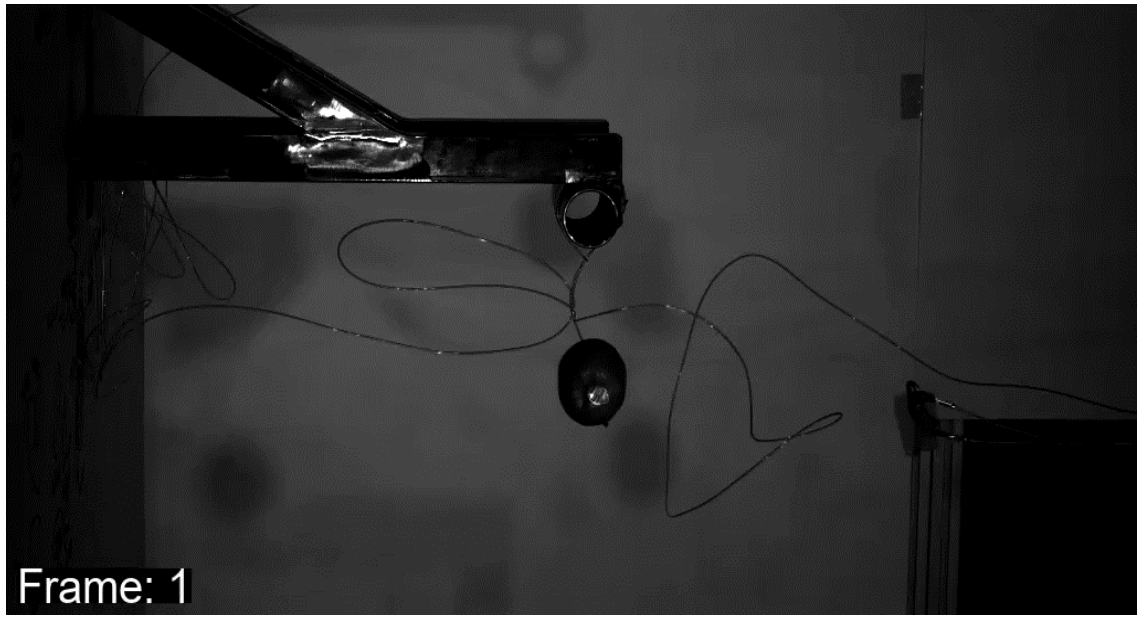
Flyback simulation

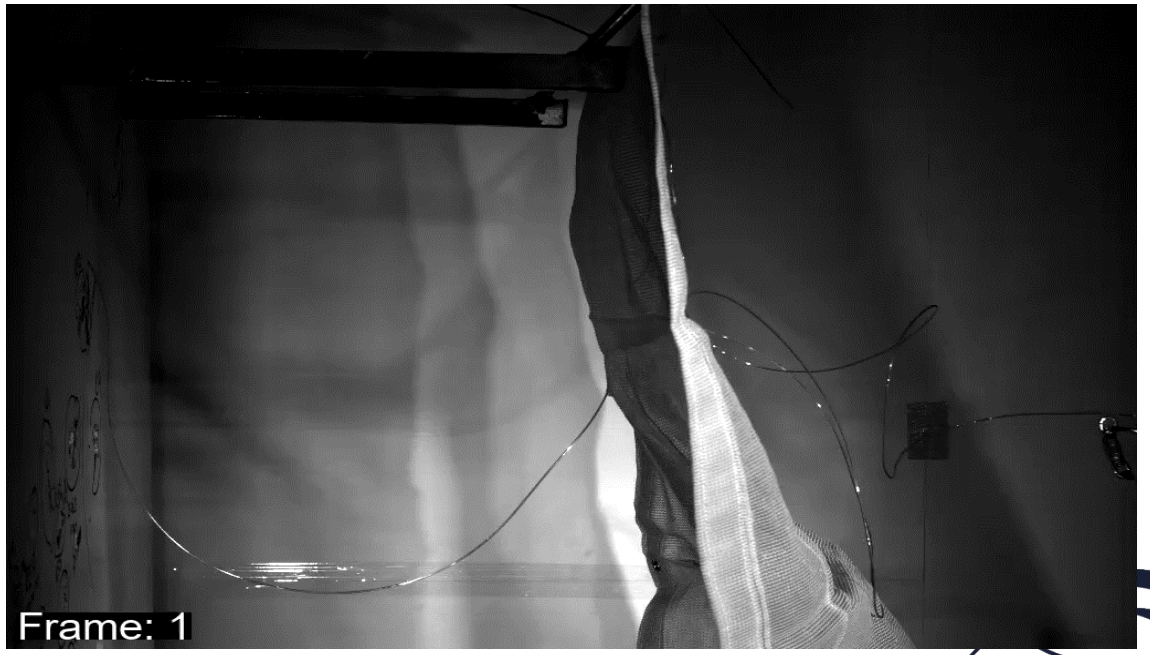
Australian Maritime College Simulator

- Only known flyback simulations in 2014
- Assess velocity, trajectory and impacts of mitigation measures
- Standard gear, sliding safety lead, weighted hook and hook shielding device tested
- Initial results show safety bar has excellent potential to concentrate flybacks
- Weighted hook velocities 50km/hr faster than other configs, difficult to constrain trajectory
- Explore other line weighting systems i.e. Yamazaki leader and US mandated gear weighting
- Any new mitigation technologies must be tested before being considered to ensure CREW SAFETY

Flyback injuries

Flyback simulation

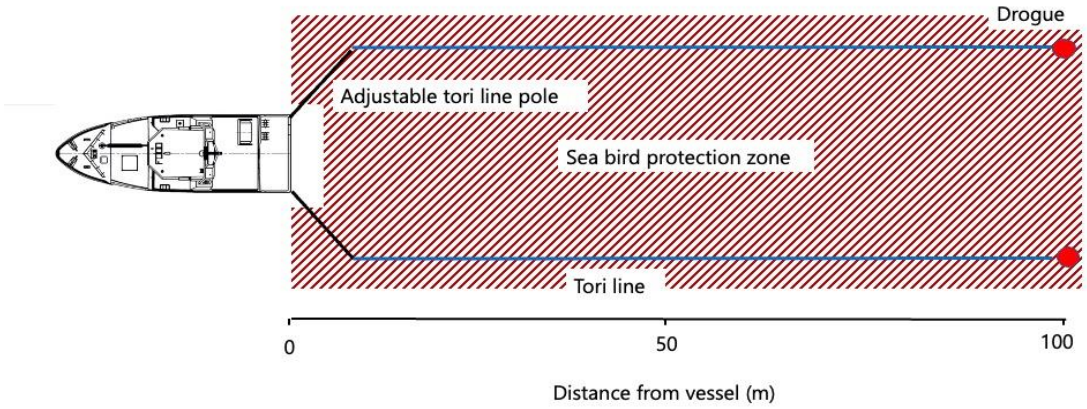




The .ppt file, including the videos can be found in the dedicated SharePoint folder for the WCPFC CMM-2018-03 review. For access to this SharePoint folder, please contact jfischer@doc.govt.mz

Future research

- Further flyback simulation – to improve understanding and safety of existing mitigation methods
- Explore sink rate research to understand cross current impacts and prop wash
- Understand impacts of live bait hooking positions on sink rate and bait longevity
- Adaptive tori line management –Increase protection of the seabird scavenging area



Future research

We do support

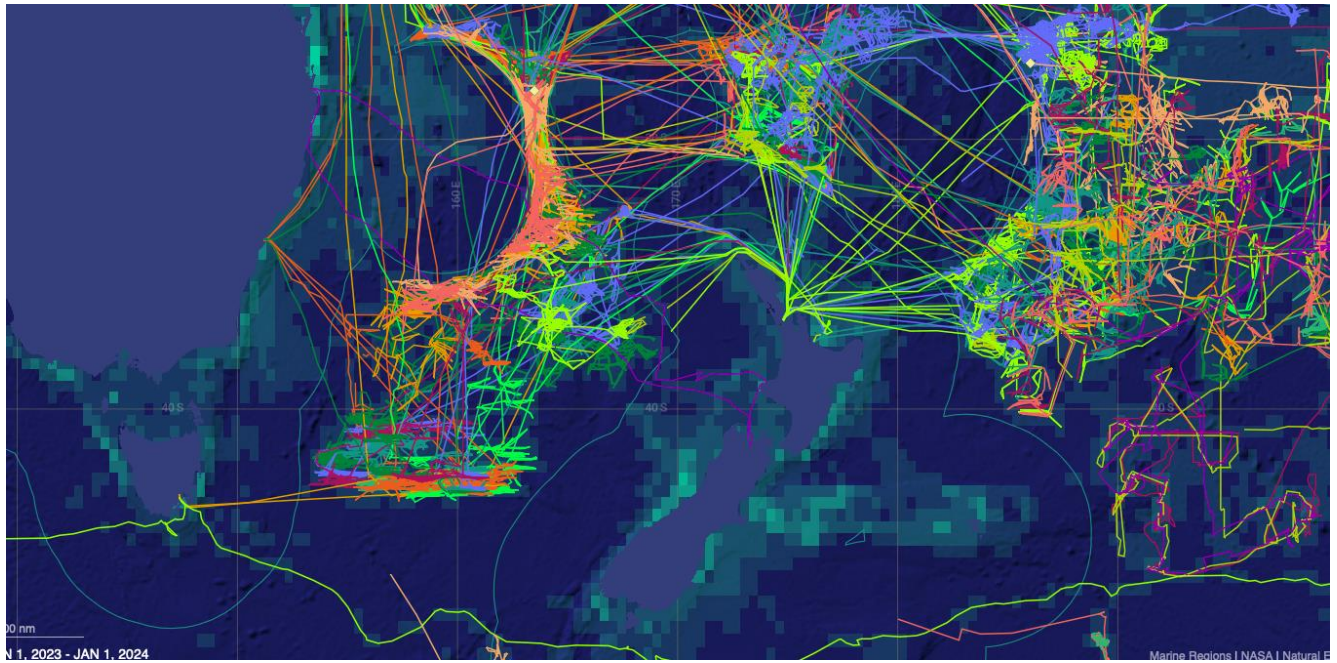
- Industry to industry peer collaboration and research
- Consideration of fisher safety
- Innovation beyond current suite of available mitigation

We do not support

- More line weighting
- Line weighting closer to hooks
- Weighted hooks – initial simulation suggests unacceptable danger
- Any mitigation device that has not been safety tested
- Mitigation devices that impact operational efficiency or live bait performance
- Investment in research on devices with no prospects of commercial uptake

High seas fishing effort in known seabird foraging latitudes

- Area shown in map below is from Global Fishing Watch
- The area is a known seabird foraging area
- Are monitoring requirements applied consistently and sufficiently to ensure all relevant CMMs are being followed?



Concerns

Improve logbook reporting for interactions

How are other impacts to seabird populations going to be addressed?

i.e. disease, pollution, vermin, offshore wind

Inadequate safety research when introducing mitigation technologies

Who is responsible for mitigation equipment injuries to fishers?

Summary

Australia has reduced seabird interactions by 99% since mid 2000s

Our experience suggests seabird interactions from fishing can be minimized over a sustained period