

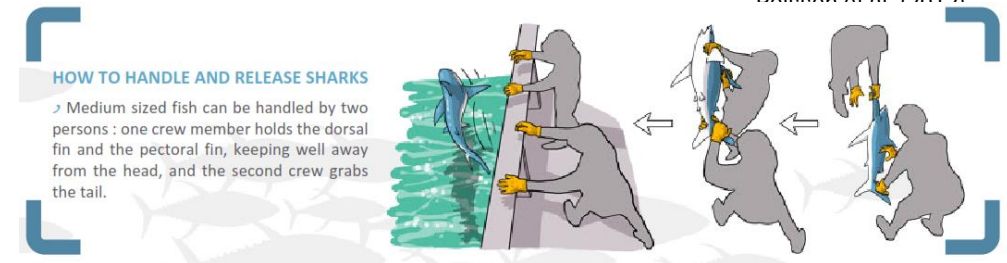
UPDATED BEST HANDLING AND RELEASE PRACTICE GUIDELINES FOR VULNERABLE SPECIES IN TROPICAL TUNA PURSE SEINE FISHERIES

Murua, J., Ferarios, J.M., Maitane, G., Ruiz, J., Cuevas, N., Krug, I., Onandia, I., Moreno, G., Murua, H., Zudaire, I., Erauskin-Extramiana, M., Lopetegui-Eguren, L., Santiago, J.



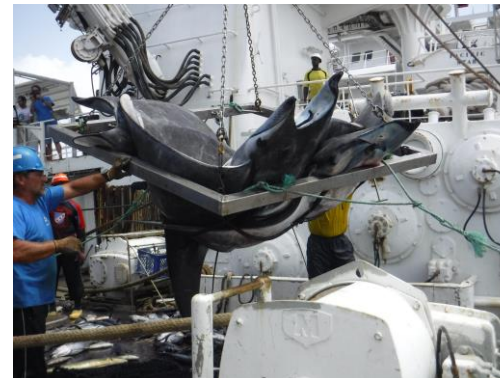
CURRENT STATE OF HANDLING AND RELEASE PRACTICES IN TUNA PURSE SEINERS

- Best release practices exist (e.g., Poisson et al., 2012), mostly describing “not to do” actions (e.g., ropes, gaffs, hooks) and manual release methods.
- Several resolutions have been passed on this matter by RFMOs (e.g., IATTC C-15-04, C-19-04, C-23-07)
- Application of best practices can be simpler with smaller animals (e.g., sea turtles, small sharks), but very difficult with large and/or dangerous species (e.g., adult sharks and mobulid rays) (Maufroy et al., 2020). This can lead to poor practices and lower survival rates of ETP species.
- New bycatch release technology has been developed and tested in the last 5 years to solve some these practical and safety issues.



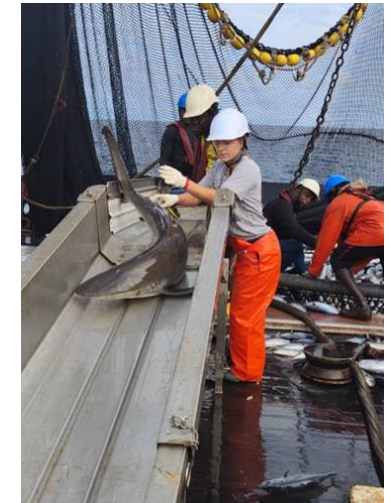
MOBULID RAY SORTING GRIDS

- Simple, safe and inexpensive method to release mobulids.
- Can be used in any vessel with a deck crane or even with the boom.



BYCATCH RELEASE RAMPS

- Ramps act as water slides to quickly and safely release sharks and other bycatch species.
- Designs can be adapted to the size and shape of the deck and are becoming lighter (aluminum), practical (foldable for storage) and have a relative low cost (< 2000 USD).



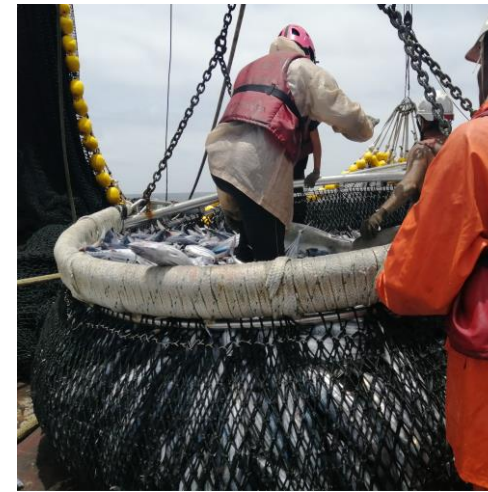
SHARK VELCROS

- Risky and difficult to extract large sharks from the brail.
- Padded Velcro enables extraction and appears to not harm the shark (satellite tag data).
- Currently lifting sharks by the tail is prohibited by CIAT, so to use velcros there should be an amendment.



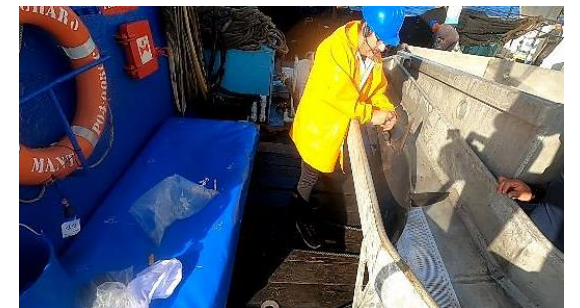
LOWER DECK GUTTERS

- Often unobserved sharks in the brail fall accidentally fall to the lower deck, which delays the release operation.
- Vessels with gutters in the lower deck (AND CONDUCTING BEST RELEASE PRACTICES ON THE TOP DECK) can increase survival to 40 % (Onandia et al., 2021).
- This BRD is more implementable in new construction vessels.



HOPPERS WITH RAMPS

- Hoppers with a wide tray and stoppage door can greatly prevent sharks accidentally ending in the lower deck (e.g. < 10% sharks).
- Preliminary research cruise results using vitality indexes and satellite tag data has shown silky shark post-release survival of nearly 60% in the Eastern Pacific.
- Installation on vessels should be examined in a case-by-case study. Recommend they are introduced in new purse seiners.



RECOMMENDATIONS

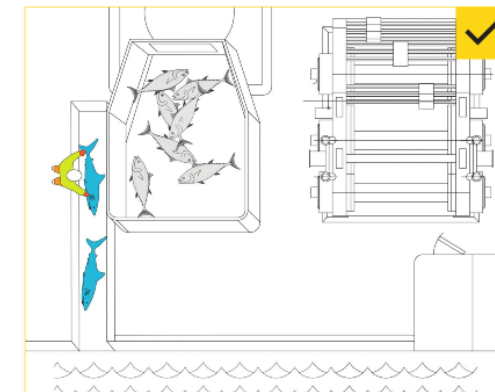
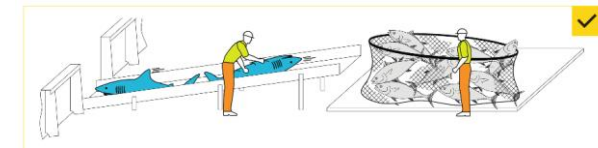
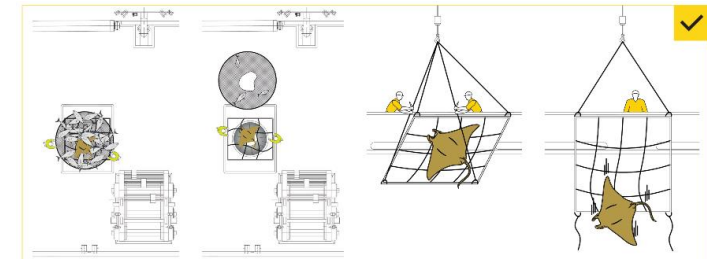
- For RFMOs to include in their measures relating to best release practices for ETP species the newly tested and contrasted bycatch release equipment options.
- A new updated guide has been produced which includes past and new methods to inform managers and act as a reference for industry members wishing to raise their sustainability standards .

EN

https://www.azti.es/wp-content/uploads/2024/02/AZTI_BBPP_guide_EN-low.pdf

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https://www.azti.es/wp-content/uploads/2024/02/AZTI_Guia_BBPP_low.pdf





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