3rd Meeting IATTC WGEB, La Jolla, California (USA), 26-27 May 2025

# Can lifting large sharks by the tail be a best handling & release practice?

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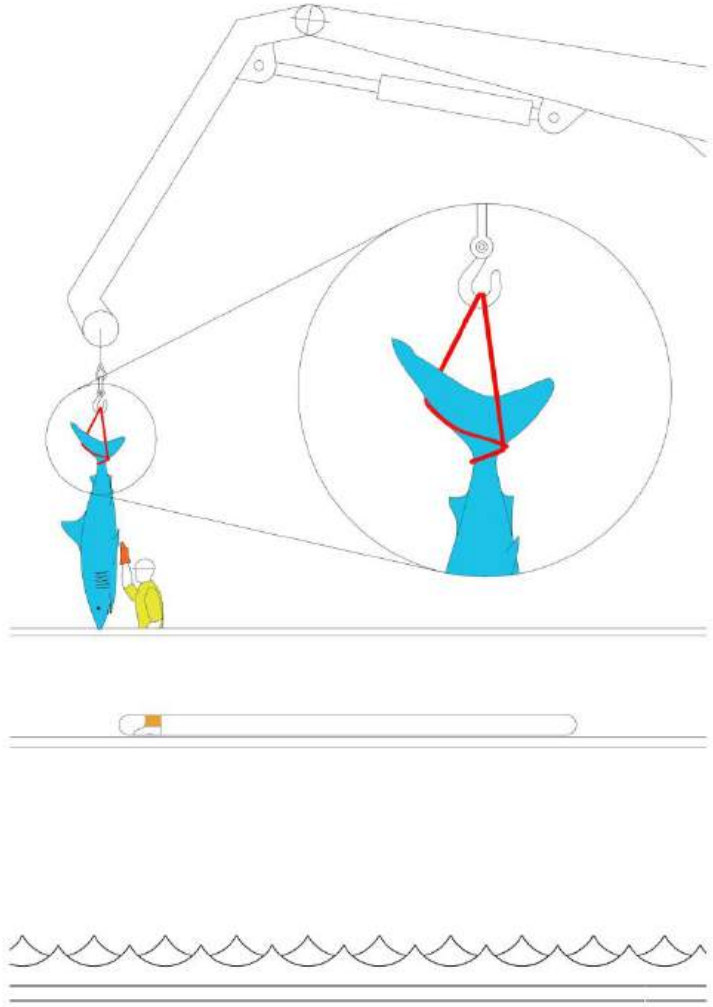
# SHARKS Best Handling and Release Practices C-24-05

11. CPCs shall require their vessels to **promply release unharmed all sharks** that are not retained, **to the extent practicable**, as soon as they are seen….brailed on deck, **taking into due consideration the safety of any person onboard**…

11. b. Sharks brailed on deck must be **returned to the water as soon as possible**…

11.d. **Prohibit the lifting of sharks by …tail**…..



18. **By 2027, CPCs** will undertake, where possible, in cooperation with the IATTC **scientific staff, actions to**:
d. **Improve handling practices for live sharks to maximize their post-release survival**

# Manually handling small sharks is relatively safe

# Asking fishers to manually handle some sizes of sharks can potentially lead to serious injuries

# To ensure crew safety large sharks might be left on deck until they are less active

Most poor practices (i.e., nooses) occur with large sharks

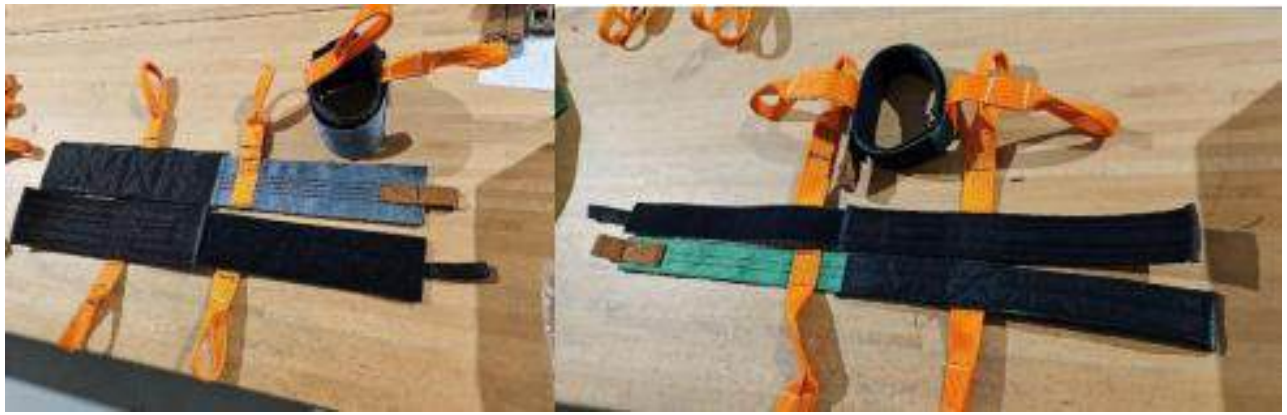
# Bycatch Release Devices

Minimize direct contact fisher-elasmobranch (+ safety)

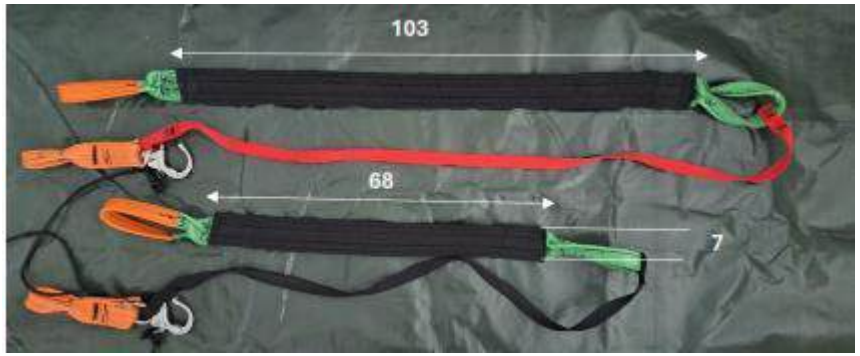
Handling non harmful to bycatch  species (+ post-release survival)

Accelerate release time ( + post-release survival)

**SHARK VELCROS**

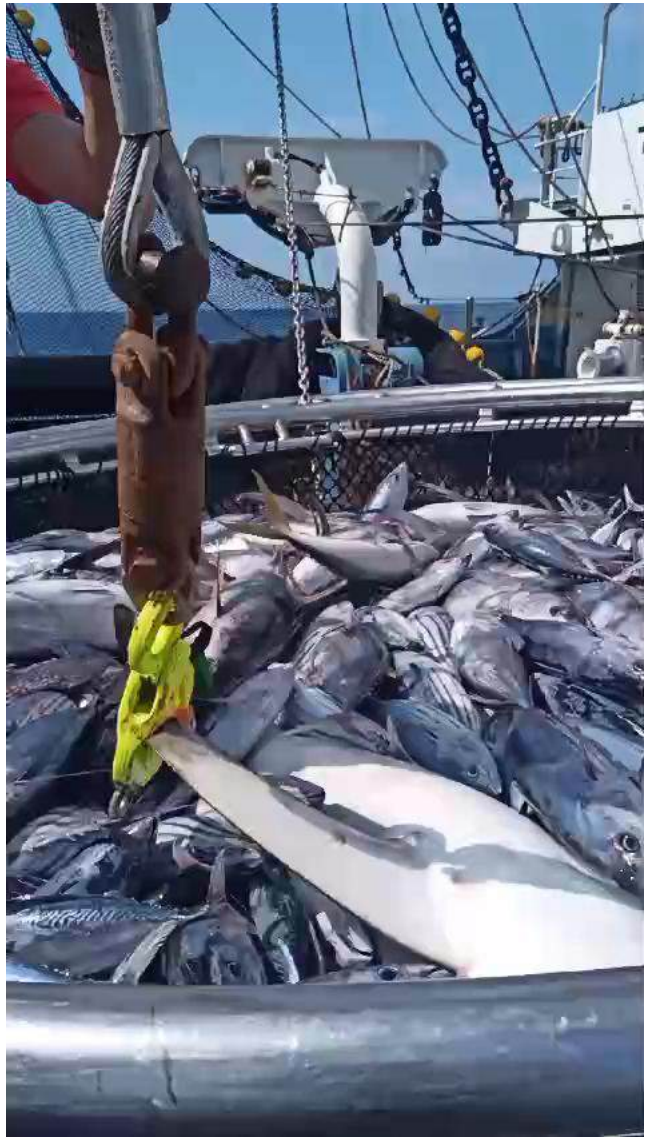


**SHARK HARNESSES**

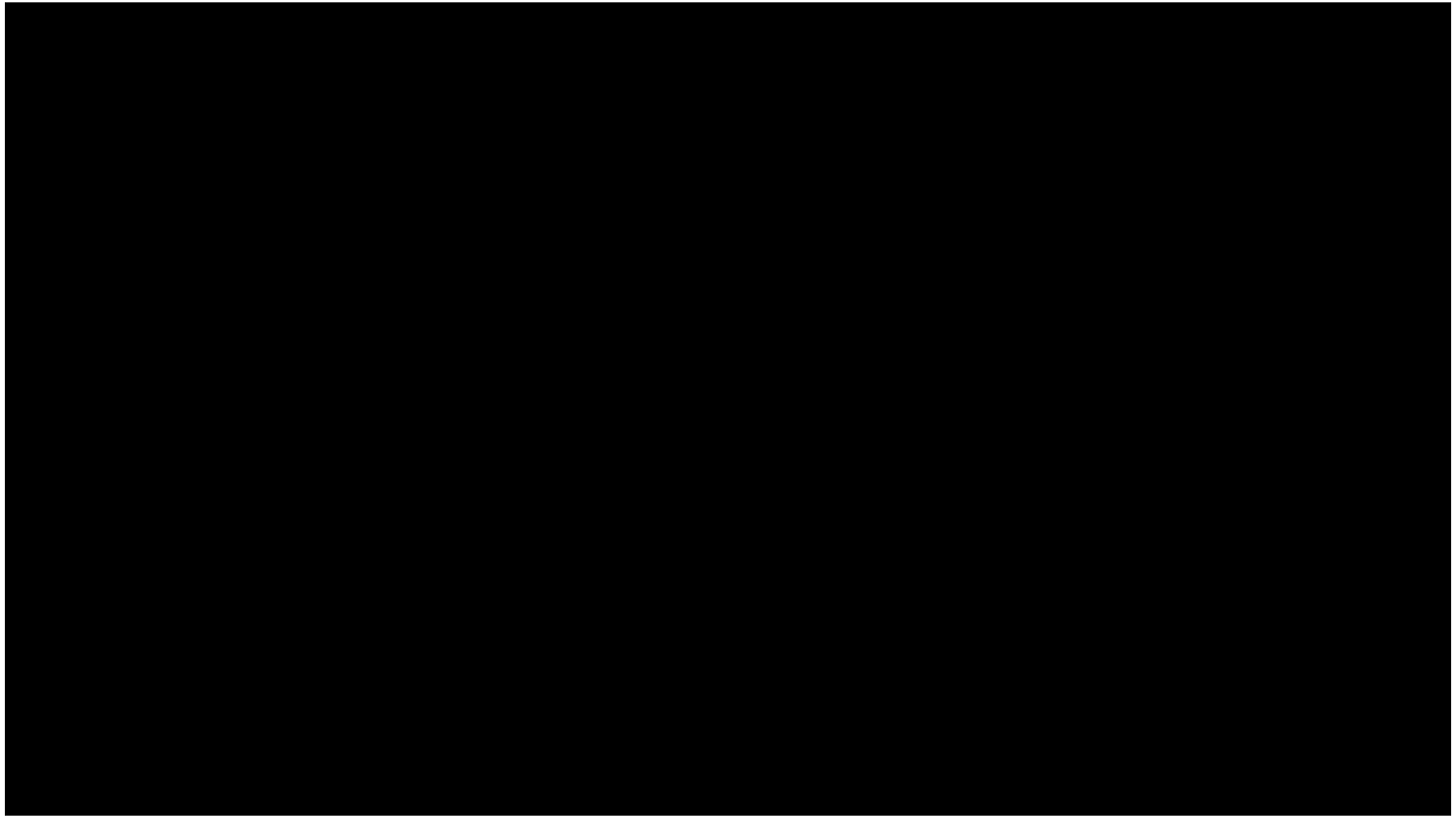



**Murua et al., 2025. Codeveloping on deck conservation technology with tropical tuna purse seine fishers to mitigate elasmobranch bycatch** https://doi.org/10.1093/icesjms/fsaf057

# Shark released with harness



# Sharks released with velcros

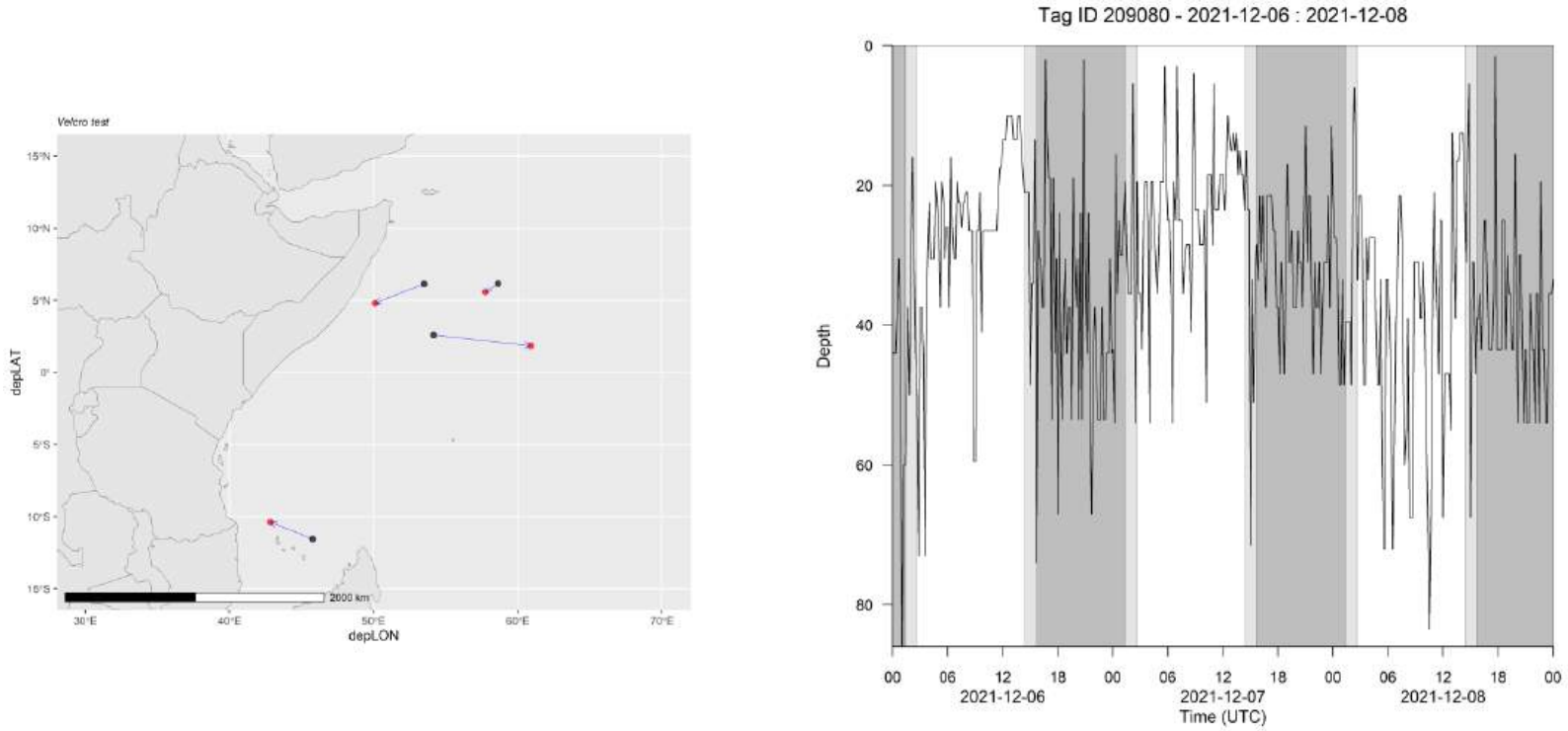


# Shark released with velcro and tagged

| Tag Type | Shark species | Length (cm) | Sex | Lactate (mmol/L) | Vitality | Survival |
|---|---|---|---|---|---|---|
| sPAT | Silky | 144 | Female | 7.2 | 2 | Yes |
| sPAT | Silky | 171 | Female | 4.7 | 2 | Yes |
| sPAT | Silky | 140 | Female | 4.5 | 2 | Yes |
| sPAT | Silky | 171 | Male | 4.6 | 2 | Yes |

| Shark species | Length (cm) | Sex | Lactate (mmol/L) | Vitality | Behaviour after release |
|---|---|---|---|---|---|
| Silky | 171 | Male | 5.6 | 2 | Swim away vigorously |
| Silky | 165 | Female | - | 3 | Swim away slowly |
| Silky | 188 | Female | 4.6 | 1 | Swim away vigorously |

# Shark behaviour after release with velcro




Tag deployment and release locations of sharks released with velcros and tagged in the Indian Ocean (left) and daily vertical movement patterns of one of them (right).

Shark daily movement patterns, both horizontal and vertical, appeared normal

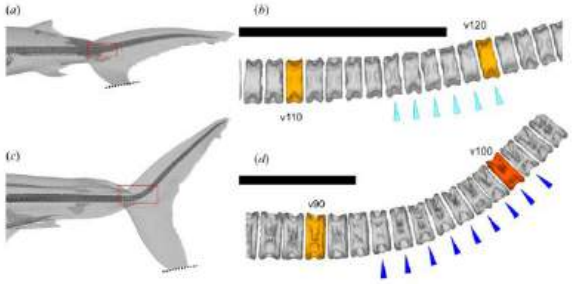
# Future steps

- Conduct more tagging of sharks released with BRDs: velcro, harness, others.... upcoming research trip in Atlantic Ocean and next year in the Pacific Ocean. Encourage CPCs to test them in cooperation with IATTC scientific staff.

- Assess if lifting sharks with BRDs causes tail damage (behaviour, physiology studies).

- Disseminate best practices with BRDs to fishers to increase readiness to use them voluntarily in their vessels.

- Present combined results of velcro and harnes in 2026 EBWG



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# MANY THANKS!


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Velcro & Harness suppliers

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