Appreciating the Complexity of Entanglements

Pieter A. Folkens
Primary Disentangler, West Coast
Entangled Whale Response Network
3 September 2019
Documentation

- Getting a grip on the extent of the issue
- Properly attributing entanglements
- Understanding Mechanism of Injury (MOI)
- Progression of injury; prognosis for survival; fatalities; ESA & PBR
- Time, location, and species trends
- Inform decision makers, gear developers
Materials
Different entanglements

Gill Net

Monofilament Long-line

3/4” Nylon Braid Buoy Mooring
Materials

Different entanglements

D-Crab

Small Diameter Monofilament

Aquaculture Frame
Materials

Different entanglements

Sein Net

Non-crab Ground Gear

Anchor Chain
Materials
Different entanglements

Unknown

Multiple Sets

Multiple Fisheries
Materials
Different entanglements

Bull Kelp
MIGRATION OF AN ENTANGLEMENT
Time

Entanglement to injury, the progression of decline
Time
From entanglement to injury . . . to recovery.
Interpret evidence
Evaluating survivors as to type and propensity
Catastrophic

Understanding how types of entanglements lead to severe injuries
Case Study — Influencing the RAMP

- Commercial D-Crab gear
- Gear set and entangled in WA
- Dragged gear into California
- Got hung up in CDIP Buoy
- Freed, but some line remained
- Recorded as CA entanglement, a probable fatality
Survivors

- “Rope” a.k.a. CRC-12578
- First documented as a formerly entangled adult in April 2009
- Sighted 22 times, most recently 29 August 2019, in the same general area (Santa Barbara Channel)
- Site tenacity — returns to same area
Fine-tuning the RAMP

The CA D-Crab fishery needs good forensic analysis so that this specific fishery is not singled out as cause of unintended injuries.