

# Injury determinations for cetaceans observed interacting with Hawaii & American Samoa longline fisheries during 2007-2011



*Photo: NMFS, PIRO Observer Program*

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# Injury Determination Process – All Cetaceans (110 interactions, 101 injuries)

- Determinations made jointly by ALB & KAF based on criteria in 2012 Serious Injury Policy
- For large whales, ‘cannot-be-determined’ (CBD) prorated based on known-outcome cases nation-wide.
- For small cetaceans, most criteria same as before, but additional consideration of:
  - capture myopathy (fatal muscle damage following struggle)
  - dependent juveniles (released alone or with seriously injured mother)
  - consideration of constricting vs. non-constricting line wraps

# Injury Determination Review

- All determinations reviewed by Lance Garrison (SEFSC)
  - Based on review and follow-up discussion, one common dolphin interaction (SS; 2011) changed from “CBD or serious” to “serious” based on duration of struggle and likely capture myopathy effects.
- Reviewed by Pacific SRG and PIRO
  - No changes, but refined use of category S2 (hook ingested) as a possible criterion when line went into mouth but hook location not visible.

# Changed Injury Determinations (vs. 2008 criteria)

## Deep-set Fishery:

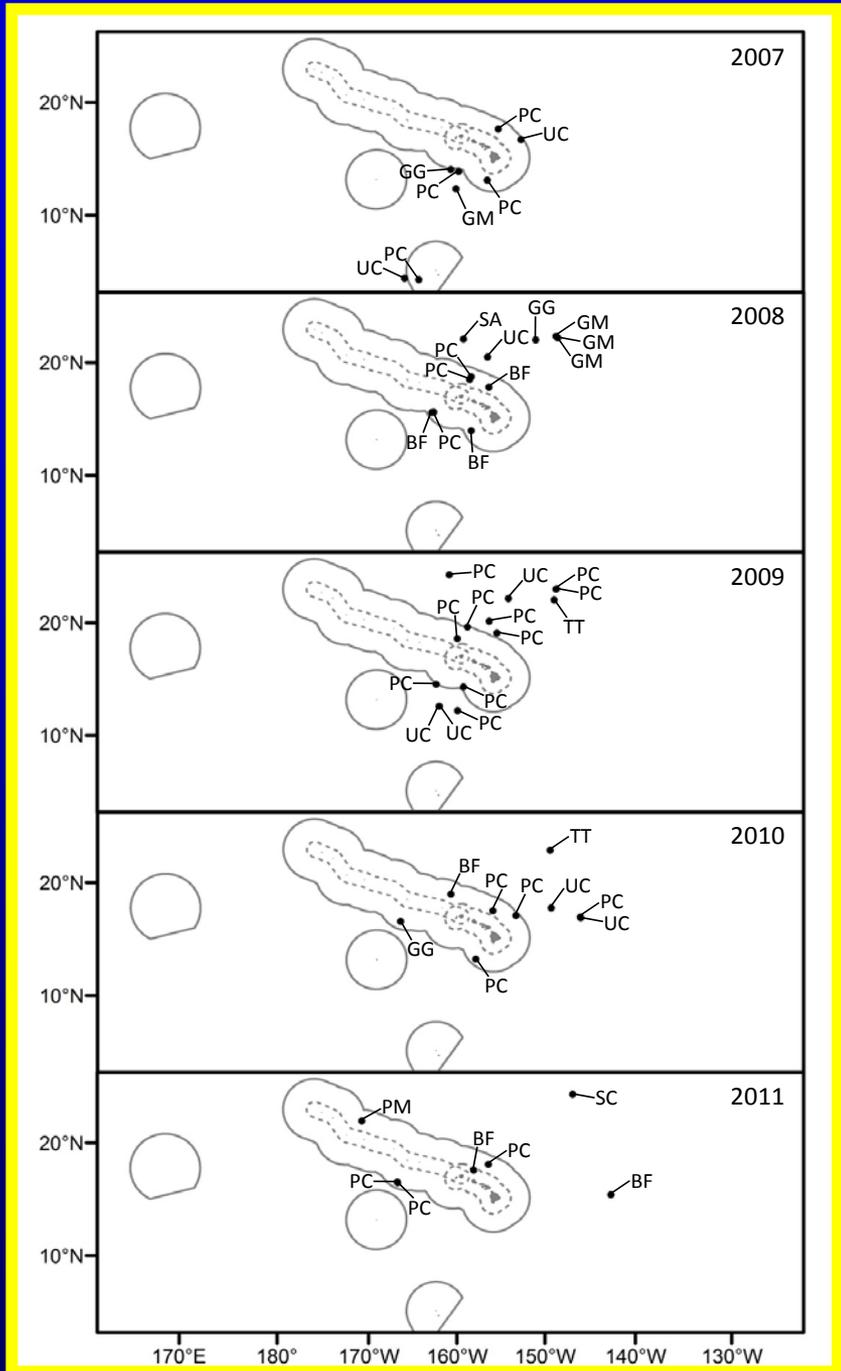
- Unid. cetacean, Serious → CBD: additional observer notes raised uncertainties about amount of line on animal
- **False killer whale (2009)** CBD → Serious: line wrapped twice around peduncle; potential to become constricting.

## Shallow-set Fishery

- 3 large whales, CBD → prorate 0.75 Serious
- One bottlenose dolphin calf released with seriously injured mother – ‘new’ serious injury (not evaluated previously)
- Risso’s dolphin, CBD → Serious (capture myopathy; potential for line to become constricting)
- Common dolphin, CBD → Serious (capture myopathy)

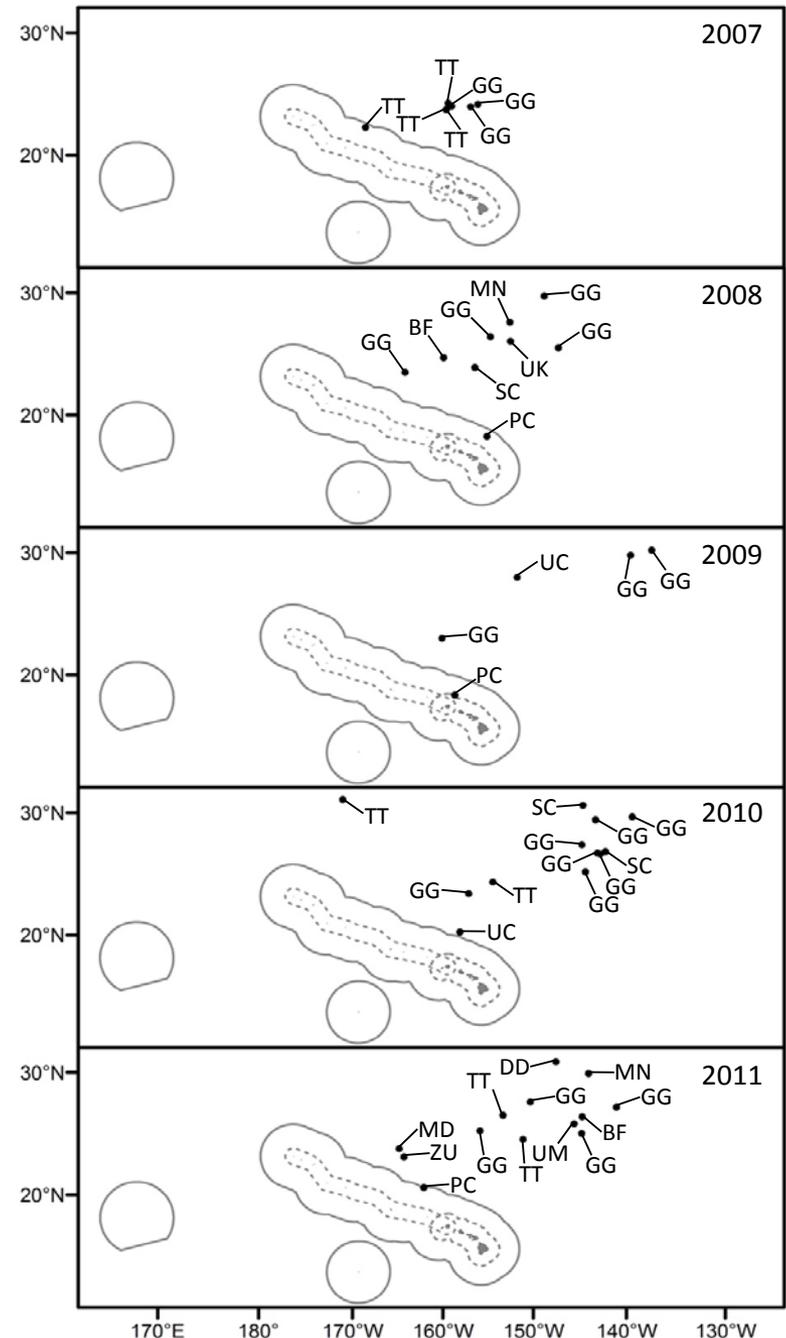
# HI Deep-set

- 50 interactions
- Most involved false killer whales (48%)
- Most resulted in death or serious injury (74%)
- Most occurred outside U.S. EEZ (54%)



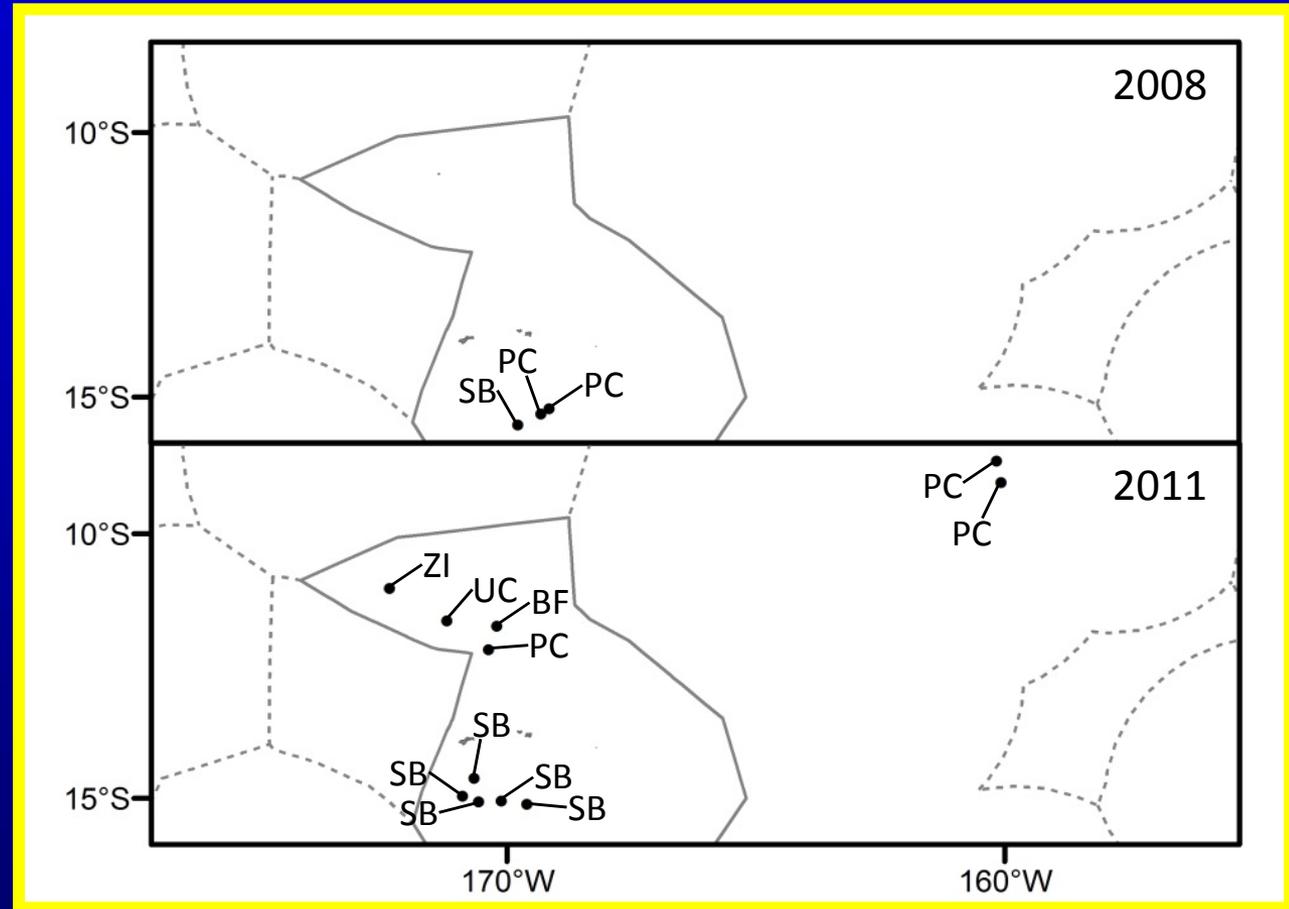
# HI Shallow-set

- 46 interactions
- Most involved Risso's dolphins (46%)
- Most resulted in death or serious injury (77%)
- Most occurred outside U.S. EEZ (91%)



# American Samoa Deep-set

- 14 interactions
- Most involved rough-toothed dolphins (43%)
- Most resulted in death or serious injury (93%)
- Most occurred inside U.S. EEZ (86%)



# Preliminary injury determinations for false killer whale interactions, 2012-2013

Date	Fishery	Area	Preliminary Injury Determination	Criteria	Key details
<b>False killer whales:</b>					
16-Mar-12	DS	Hawaii (P)	CBD		Hooked in unknown location; line broke; 0.5m wire leader and hook remained on animal
3-Mar-12	SS	Hawaii (P)	CBD		Entangled in the mainline around the tail stock, but as vessel maneuvered tension on line caused it to part, animal came free and swam away. Whale had been struggling and appeared tired; observed duration 10 min. CBD because serious injuries could have been caused by great tension on the line around tail and capture myopathy effects.
29-Oct-12	DS	Hawaii (I,N)	Serious	S5a, S6	Hooked in mouth; ~17m line remained on animal after line cut
25-Dec-12	DS	Hawaii (I,N)	Serious	S5a	Hooked in mouth; hook remained; 7-ft size suggests dependent juvenile
15-Jan-13	DS	Outside	Non-serious	S5c	Hooked in unknown location 15/0 or 16/0 circle hook; animal freed itself from gear; interaction was brief; 8-ft size suggests dependent juvenile
29-Jan-13	DS	Hawaii (P)	Serious	S2 or S5a, S6	Hooked in mouth or hook ingested; 6-10m line remained after line broke
21-Feb-13	DS	Outside	Serious	S6	Hooked in unknown location; remaining line had potential to be ingested or create constricting wrap
20-Apr-13	DS	Outside	Non-serious	S5c	Hooked in mouth; line came free under pressure, bent hook retrieved; interaction was brief
<b>'Blackfish' (False killer whale or short-finned pilot whale)</b>					
1-Dec-12	DS	Outside	Serious	S5a, S6	Hooked in head; ~10m line remained after line cut