Case Studies: Which gear set up is this?

• 20170618Mn: Reported in Monterey Bay
• Gear identified as CA D-crab set in Half Moon Bay area in ~60 fms; fisherman used two different set-ups this year – which is it?
• Is this extensive surface gear? Is it involved in the entanglement?
• Would double-sided printing on buoy tags potentially help in this case?
• How long would you guess has this gear been on the whale?
• Fisherman fishes out of Half Moon Bay. Although normally he fishes most/all of the season, this year he wrapped up his crab season in late March/early April, fishing in about 60 fathoms of water out in front of Half Moon Bay. He had a mix of gear: some rigged with Blue Steel floating line with leads every 5 fm; and he is over time converting to the neutral buoyant hydropro line (red-orange stuff).

• In reviewing the pictures, it does appear that the main buoy has a blue steel loop running through it, so could this mean his older gear was involved? He probably fished about 5-10 extra fms of slack. His surface gear is pretty standard - running one trailer buoy at 1.5 fm behind the main buoy.

• Assuming for a moment this could have been lost gear if the entanglement didn’t appear to have been on for a significant time period (?), he did lose about 10 traps during the season, and says that kelp in his area is a major source of having gear disappear.
Homework Case Study

- CaseID: 20160416Mn
- Entangled humpback whale reported in Monterey
- Fishery: California commercial Dungeness crab
- Question: Is there a second set of gear on this whale?? Yellow buoys reported near head by the entanglement responders
- Question: How is surface gear involved? Multiple line colors seen on tail
- From gear owner: Gear set north of Santa Cruz, southern end of gear set around 37.15 N, not far from 100 fathom curve; three buoy set up- two trailer buoys; in 68 fathoms fishes 85 fathoms orange line, 5 fm to trailer blue line, 3 fm to trailer blue line.
Two line colors + buoys

NOAA MMHSRP Permit #: 18786
Orange line on caudal/over fluke
Weird knob
Buoy tag seen
Gear drawing

5 May and 8 May, 2016
Entangled Humpback whale

Line cutting deeply into tissue (barely visible in places)

Notch where trailing line has cut into peduncle.

This line moves around, at times draping over or under the caudal peduncle and flukes.

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Another gear drawing

Red line is gone from notch on peduncle and now arises from underwater somewhere on whale's right side and goes over right fluke to trailing float.

Float is known to be attached to blue line from 5/6 photos (with short section of gray line from float to blue line). Red line now appears to go to float. Is end of red line wrapped around blue float line? Through binoculars once, not appearing in photographs, I thought I saw a tangle of blue line at the base of the float. I told the grapple boat this over the radio.

There appears to be weight pulling down the front end of the float. Is this the same weight that previously made the end of the red line disappear under the right fluke?
Photo of yellow buoys near head?
20160416Mn

- Resighted multiple times between April and June in Monterey area
  - Photographed gear free June 4
“Knots of line on head” cases

CaseIDs: 20180524Bp, 20150207Bp, 20180730Mn

• 4 cases of note that included “knots” of line on the head/back of the whale

• 2 of the 4 involved fin whales off southern CA, 1 humpback whale off Monterey and 1 humpback whale off Oregon
• CaseID: 20180730Mn
• Humpback whale reported off Winchester Bay, OR
• The whale has a bridle through the mouth that comes to a knot forward of the dorsal. The trailing line appears to terminate near the flukes and switches from left to right side of the body and does not appear to be weighted down. There is also a short loop of line emanating from the knot forward of the dorsal. The flippers and flukes/tailstock are not involved

NOAA MMHSRP Permit #: 18786
• CaseID: 20180524Bp
• Fin whale off Santa Barbara

Described as a mouth entanglement with “ball” of line over back
• CaseID: 20150216Mn
• Humpback whale off Monterey
• Appears to be loops of line behind blowhole