

## Research & Information Needs

### Short-term Needs (next meeting)

- Change in depredation before and after gill/gut regulations, Dec. 2004
- Can false killer whales drag hooks & catch to surface if hooked at deepest part of set?
- Which vessel characters serve as proxy for noise profile?
- Further information on echolocation capabilities
- Further insights from Geoff McPherson & Tom Nishida
- Vessels using various light configurations
- Evaluating split sets
- Parity between observer and logbook datasets
- Fisherman input into depredation avoidance techniques

## Short-term Analysis of Observer Data

- Need specific questions
  - Individual vessel effects (light, sound)
  - Spatial-temporal patterns in distribution of effort and depredation
  - Percent of boats with mixed hooked types
  - Within set patterns of depredation and bycatch
  - Rates of bycatch without depredation
  - Depredation rates given soak time pattern relative to other variables
  - Relationship between depredation and spacing of fishing vessels
    - Do logbook data report depredation?

## Medium-term Needs (<6 mos.)

- Photo-ID of pelagic-zone animals, including scars & disfigurement
- Satellite tagging (April)
- Acoustic characterization of insular vs. pelagic animals
- Develop predictive model of potential measures (take rate, depredation rate, target catch, fleet movements)
- Evaluate feasibility of mooring listening stations (FADs, NOAA weather buoys)

## Long-term Needs (6 mo – 2+ yrs)

- Survey R/V Sette, September 2010
- Longline acoustic monitoring
- Photo-ID & movement studies
- Understand foraging and acoustic behavior using acoustic tags
- Methods for pro-rating “blackfish” bycatch
- Recording acoustic profile of individual longline vessels
- HICEAS II- Hawaii EEZ survey 2011 (?)
- Predictive habitat modeling
- Mechanism of hooking
- Adaptive learning by young animals