

NOAA
FISHERIES

Loggerhead turtles in the Southern California Bight: insights for the southern time-area closure

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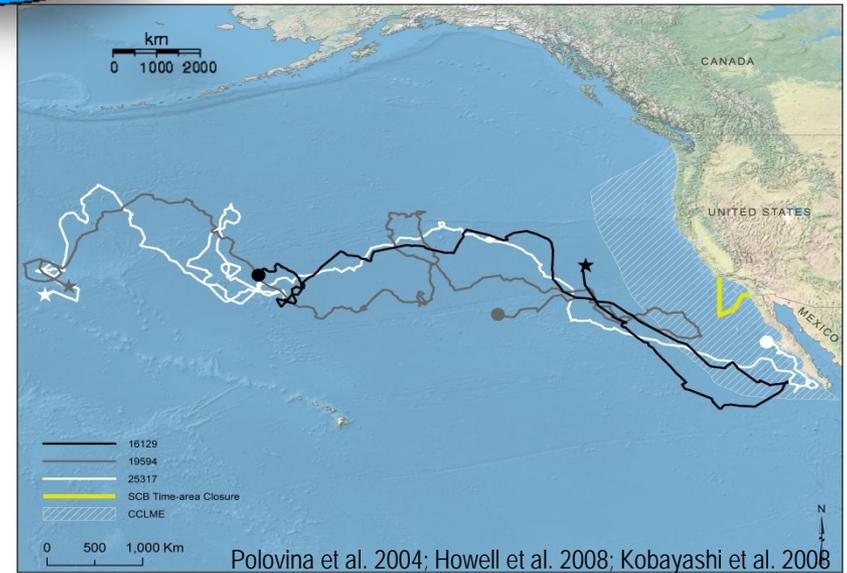
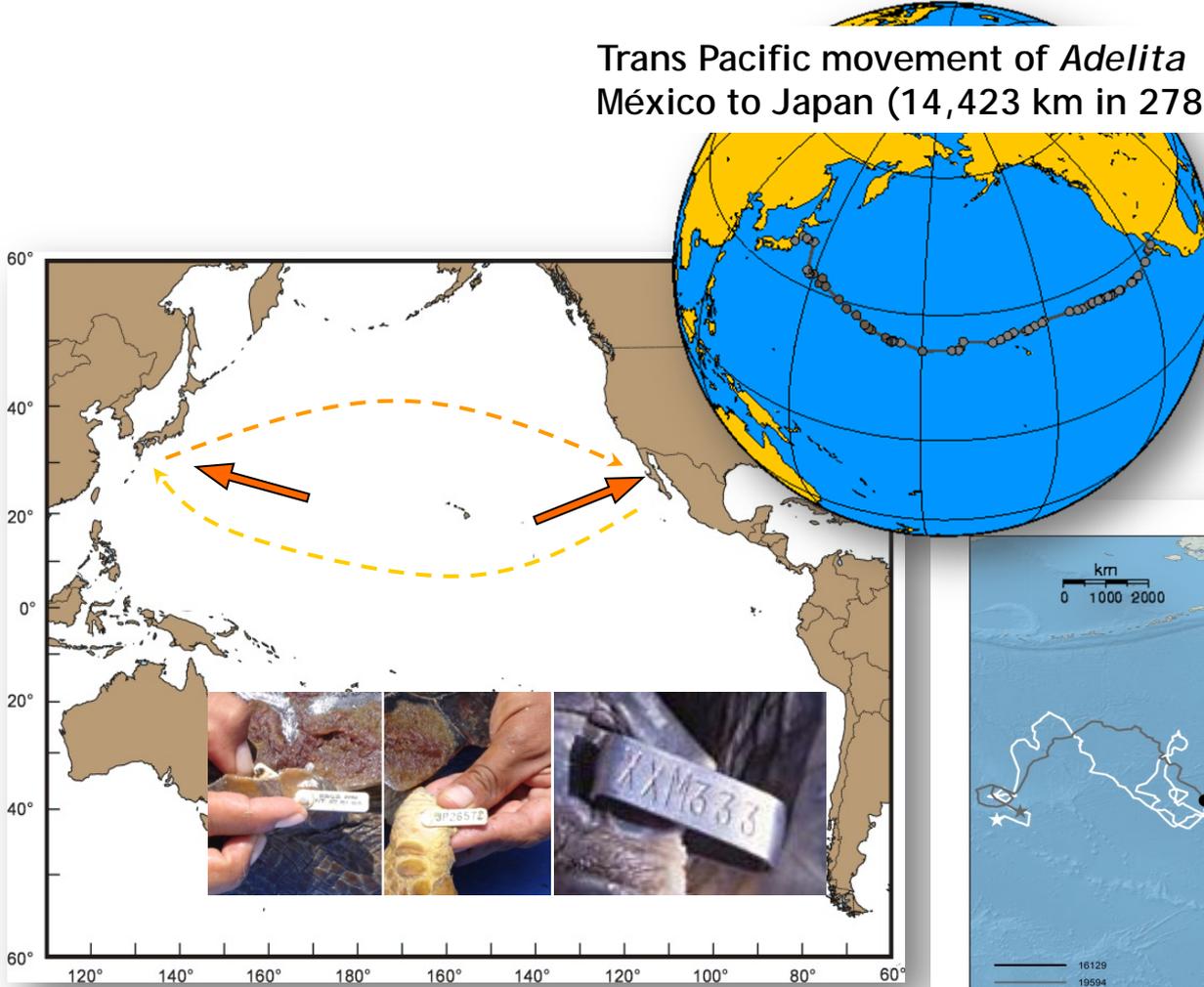
Review of NOAA Fisheries' Science on Marine Mammals & Turtles
Southwest and Northwest Fisheries Science Centers

27-31 July 2015

La Jolla, CA

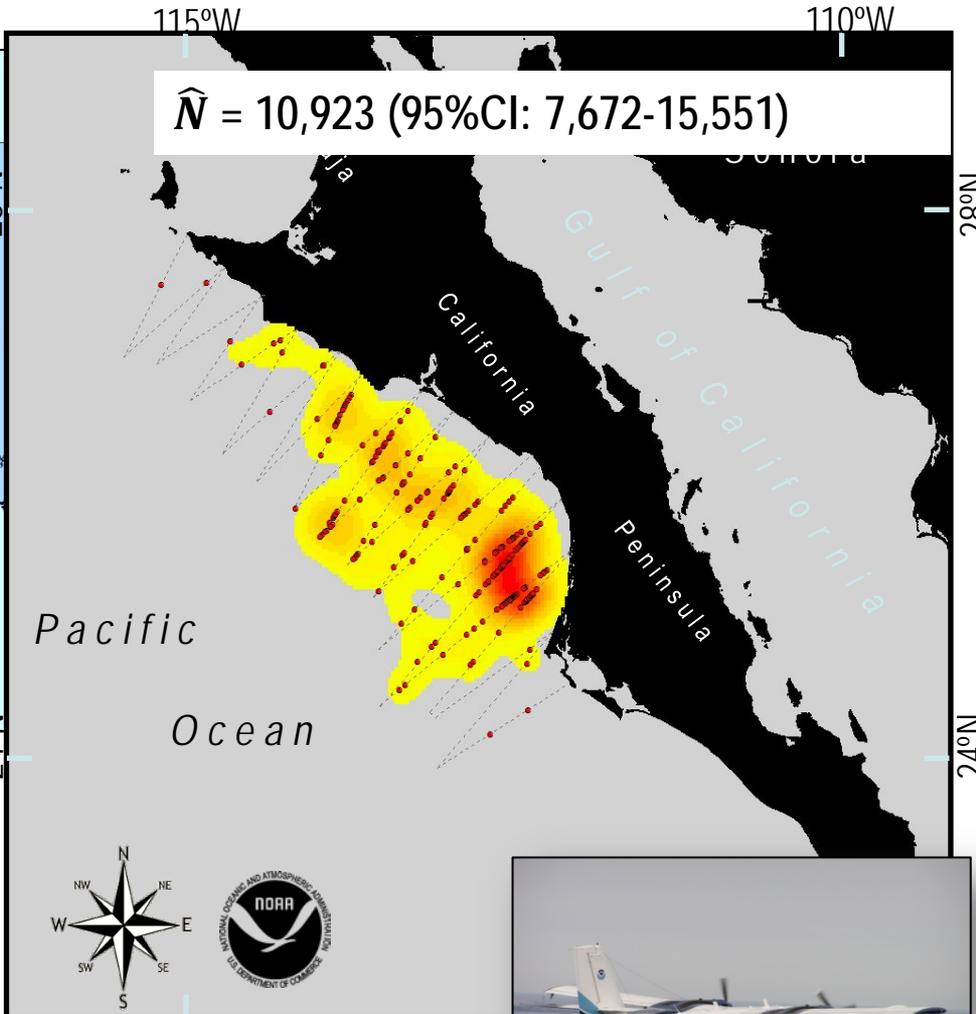
Loggerhead turtles in the eastern Pacific

Trans Pacific movement of *Adelita*
México to Japan (14,423 km in 278 days)



Uchida & Teruya 1988, Resendiz, Nichols, and Seminoff 1998, Nichols & Seminoff 2000, Peckham & Nichols, unpubl. data

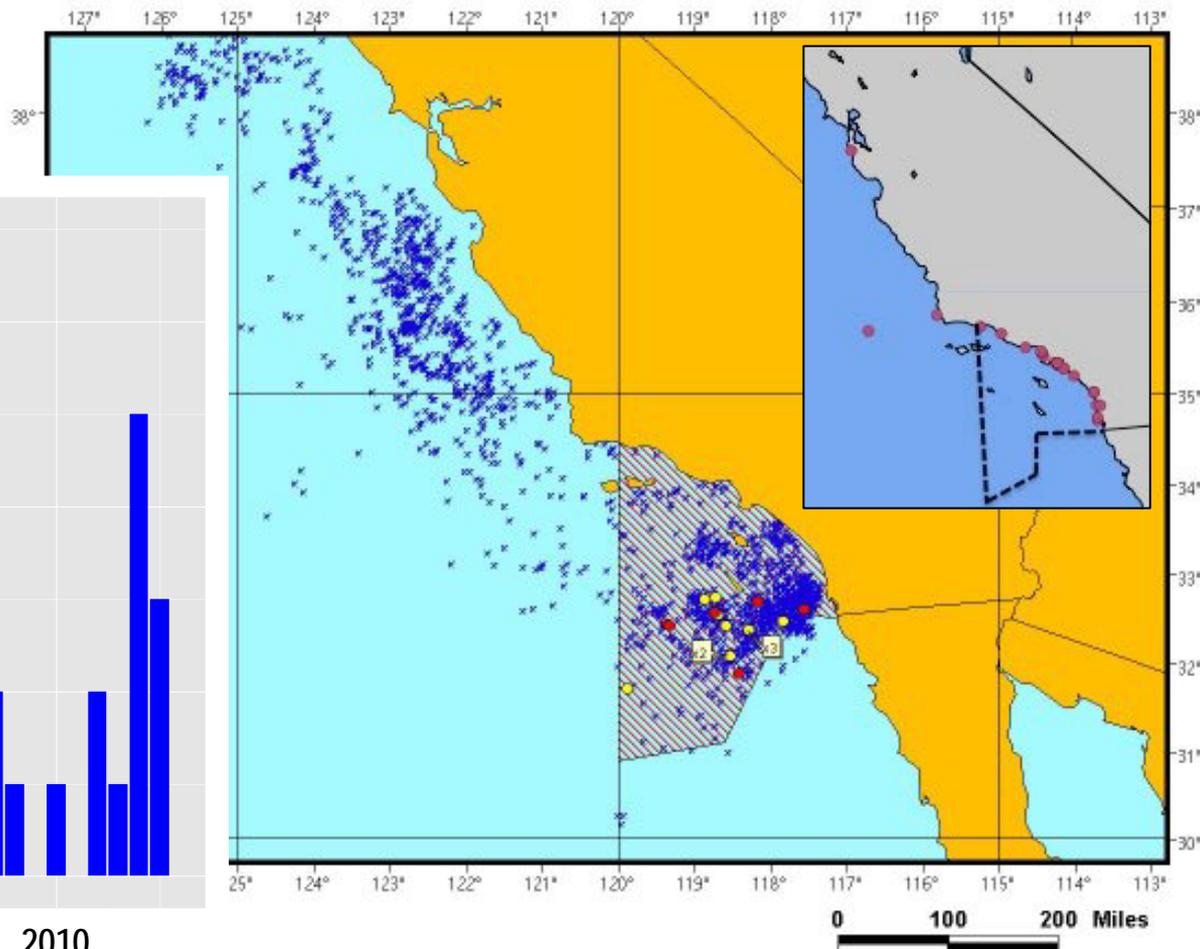
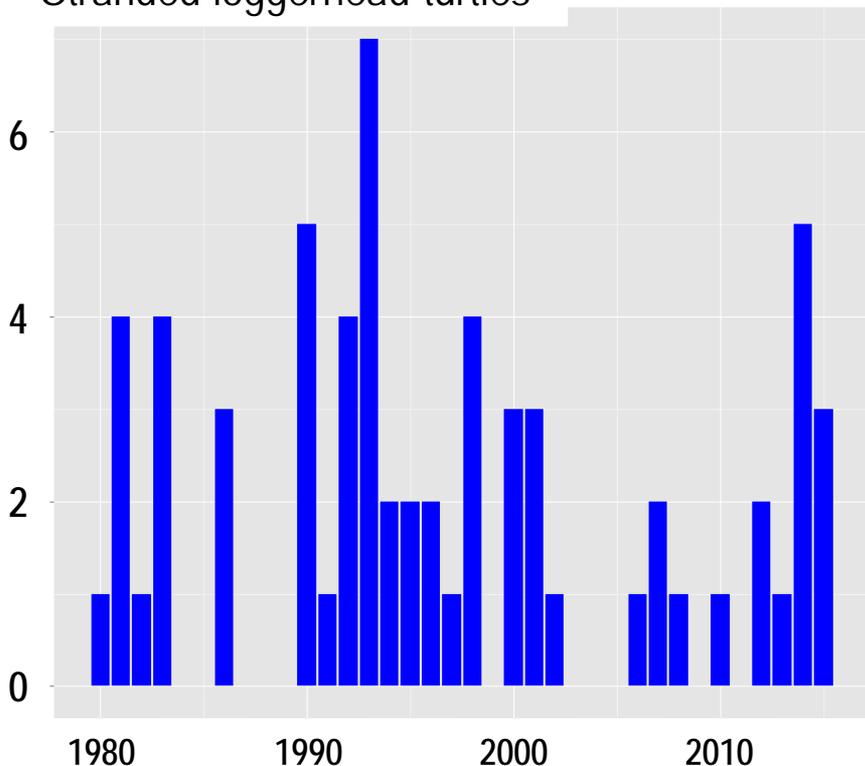
Loggerhead turtles in the eastern Pacific



Along a 45-km index beach (Playa San Lazaro, BCA)
 2003-2007: **2719** loggerheads stranded dead; Peckham et al. 2008
 July 2012: **483** loggerheads stranded dead; Esliman et al. 2012

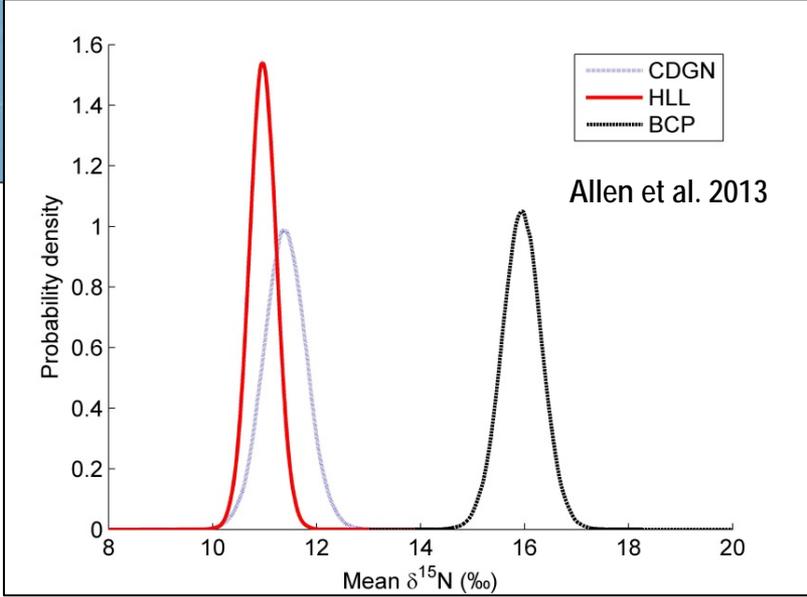
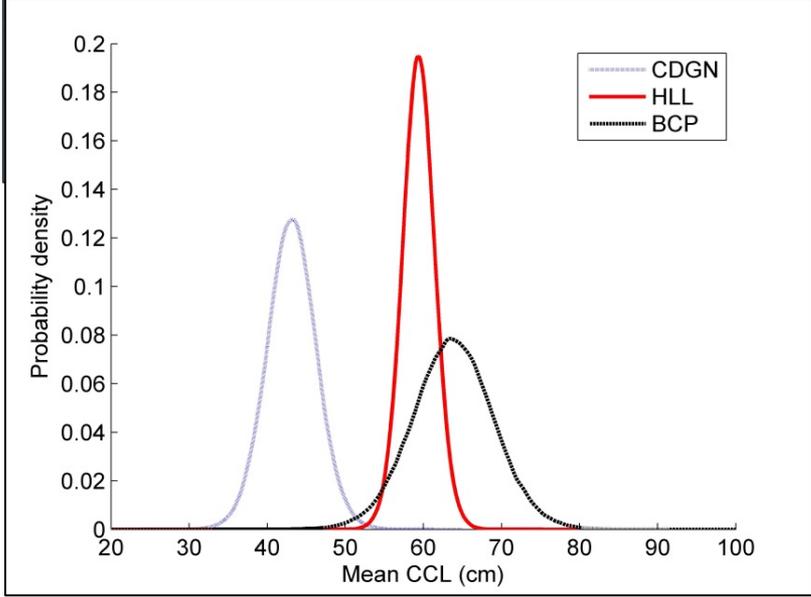
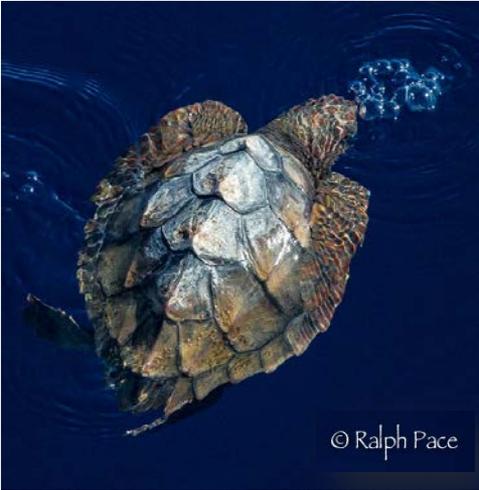
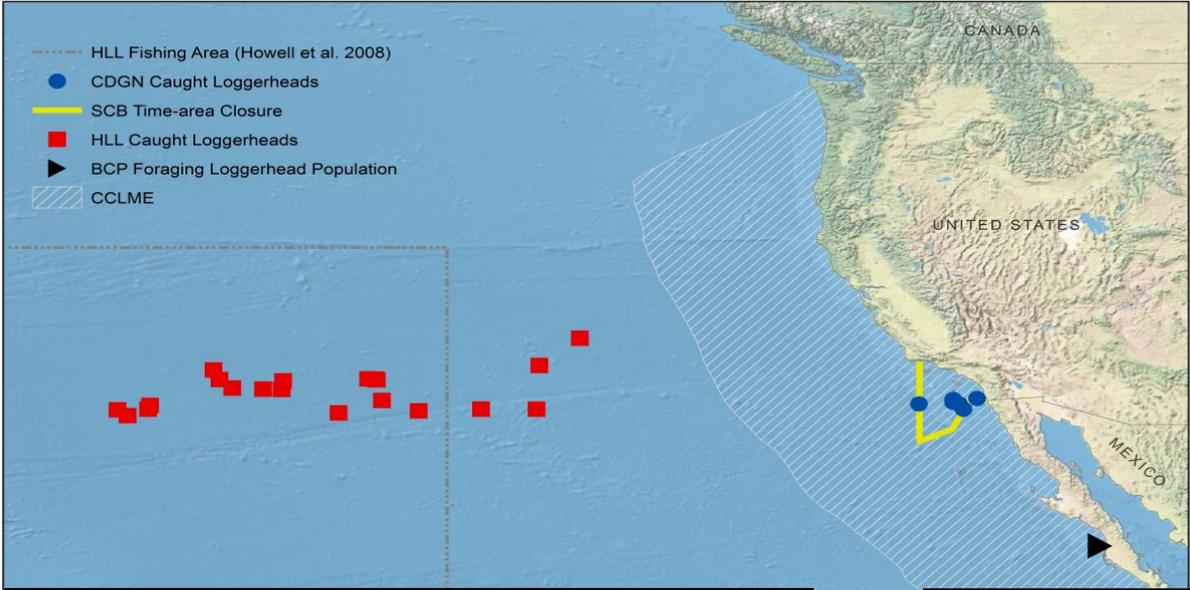
DGN management with respect to loggerhead turtles in SCB

Stranded loggerhead turtles



- **Loggerheads Outside of Time/Area Closure (n=6) *****
- **Loggerheads Within Time/Area Closure (n=11)**
- x **Observed Sets (El Niño Years)**
- ▨ **Closed Area**

"Origin" of loggerhead turtles in SCB



Recent sightings and telemetry of loggerhead turtles



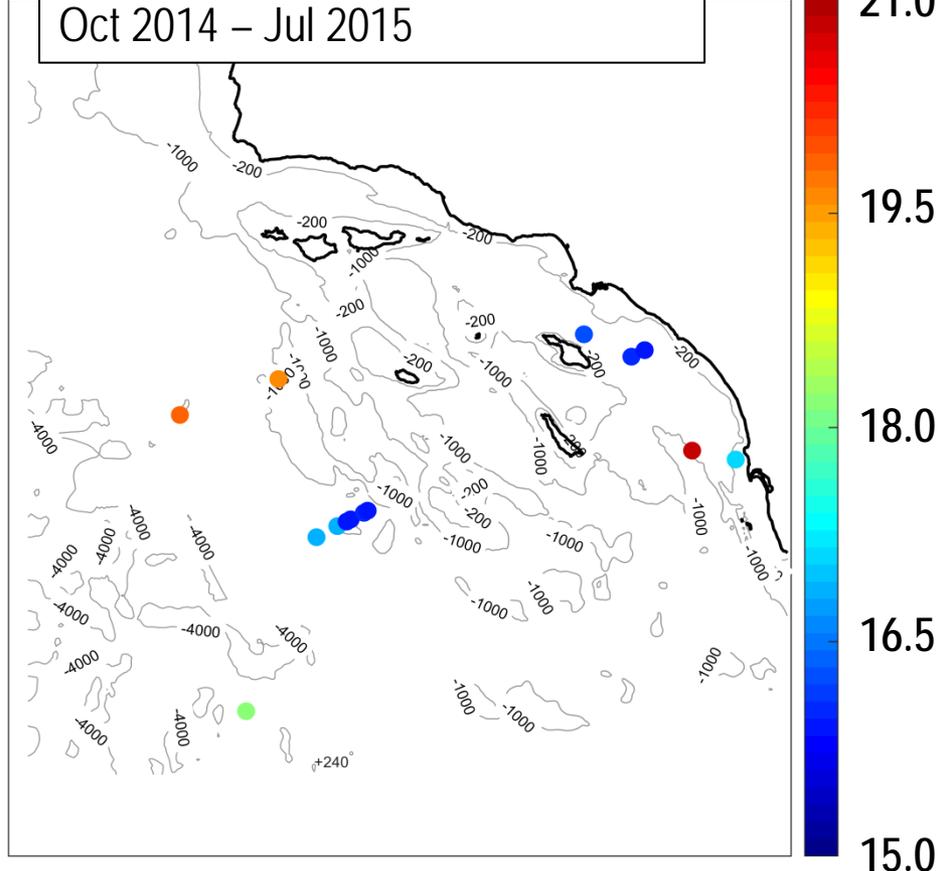
Please do not attempt to interact with or capture turtles

Please report the following information to swfsc.turtle-sightings@noaa.gov

- Date
- Latitude / Longitude (or approximate location)
- Approximate Shell Length
- Behavior and Condition
swimming, lethargic, responsive, etc.
- Photos (if possible)



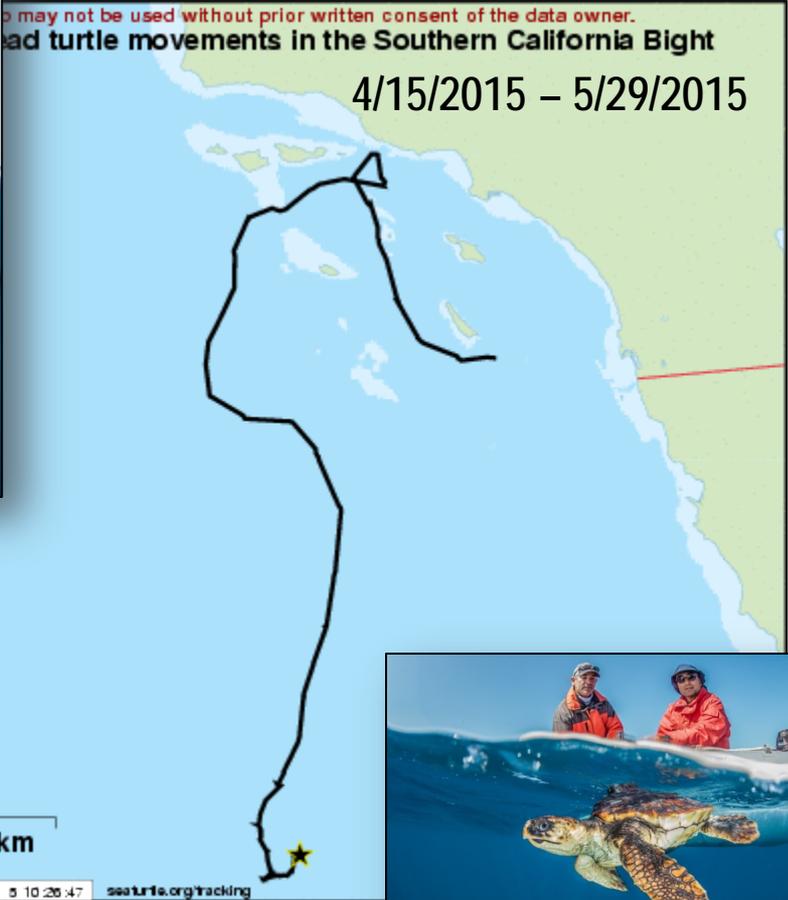
Recent 14 sightings within the SCB
Oct 2014 – Jul 2015



Capture efforts of loggerhead turtles in SCB



Funding: Office of Science & Technology



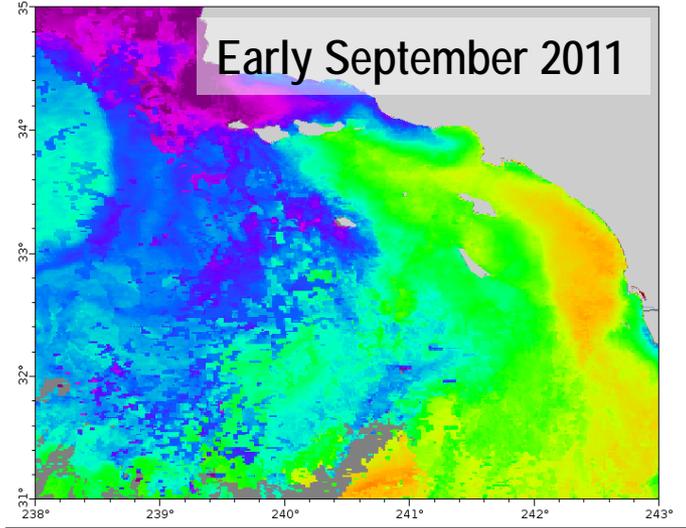
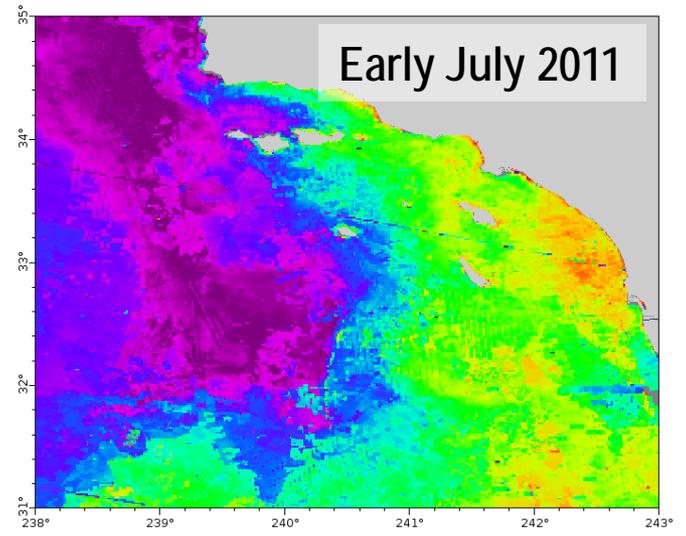
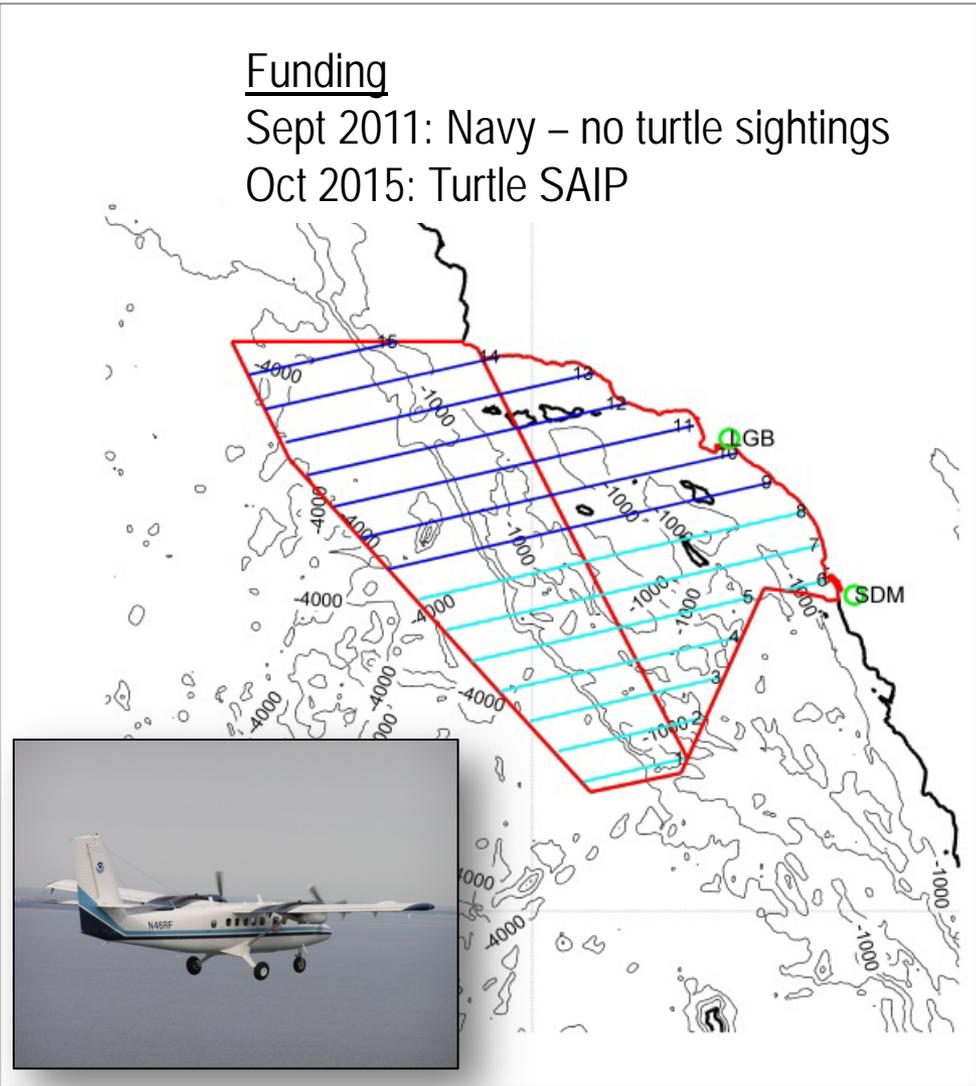
Collaboration with FRD (Sam McClatchie) and ERD (Cara Wilson)

Aerial survey in the SCB

Funding

Sept 2011: Navy – no turtle sightings

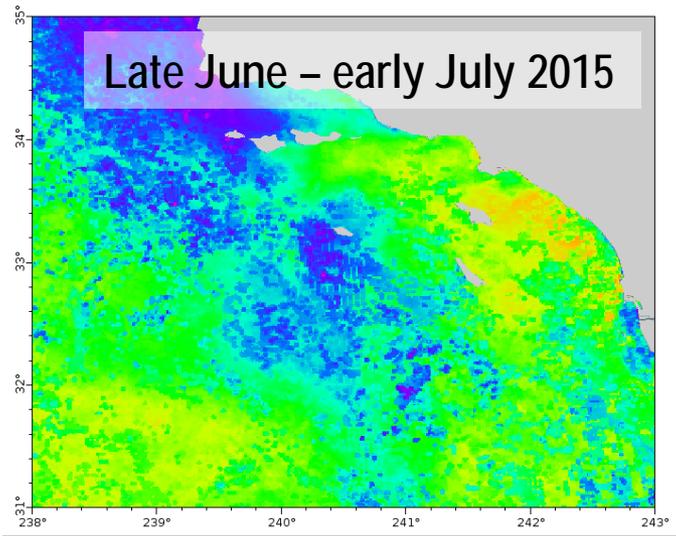
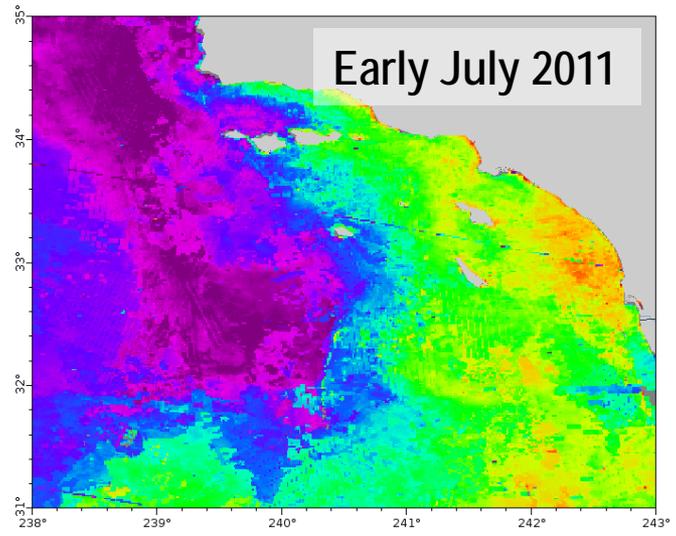
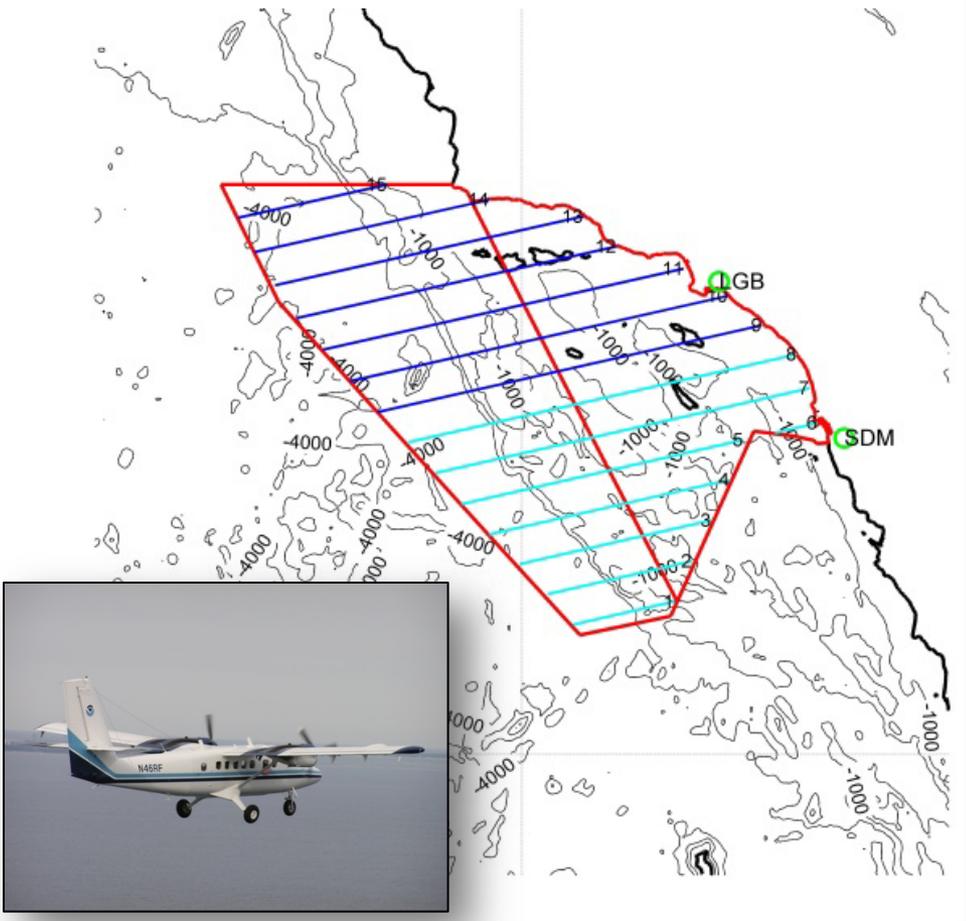
Oct 2015: Turtle SAIP



14 15 16 17 18 19 20 21 22 23 24
Sea Surface Temperature (degree C)
 SST, POES AVHRR, LAC, West US, Day and Night (14 Day Composite)
 (2011-09-01T00:00:00Z, Altitude=0.0 m)
 Data courtesy of NOAA NMFS SWFSC ERD

Aerial survey in the SCB

Ideal to conduct survey when water is warm ...
logistical problems



Management implications

Greater understanding of loggerhead turtles in the SCB

Sightings, telemetry, aerial survey:

- movements
- distribution
- density

Combined with oceanographic data, predictive models of loggerhead turtle occurrence will be developed (an example for leatherback turtles will be presented on Wed)

Other samples for:

- genetics
- stable isotopes