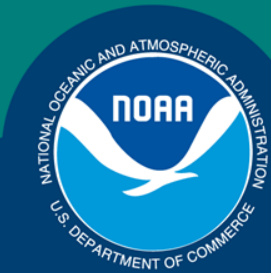


Science, Service, Stewardship

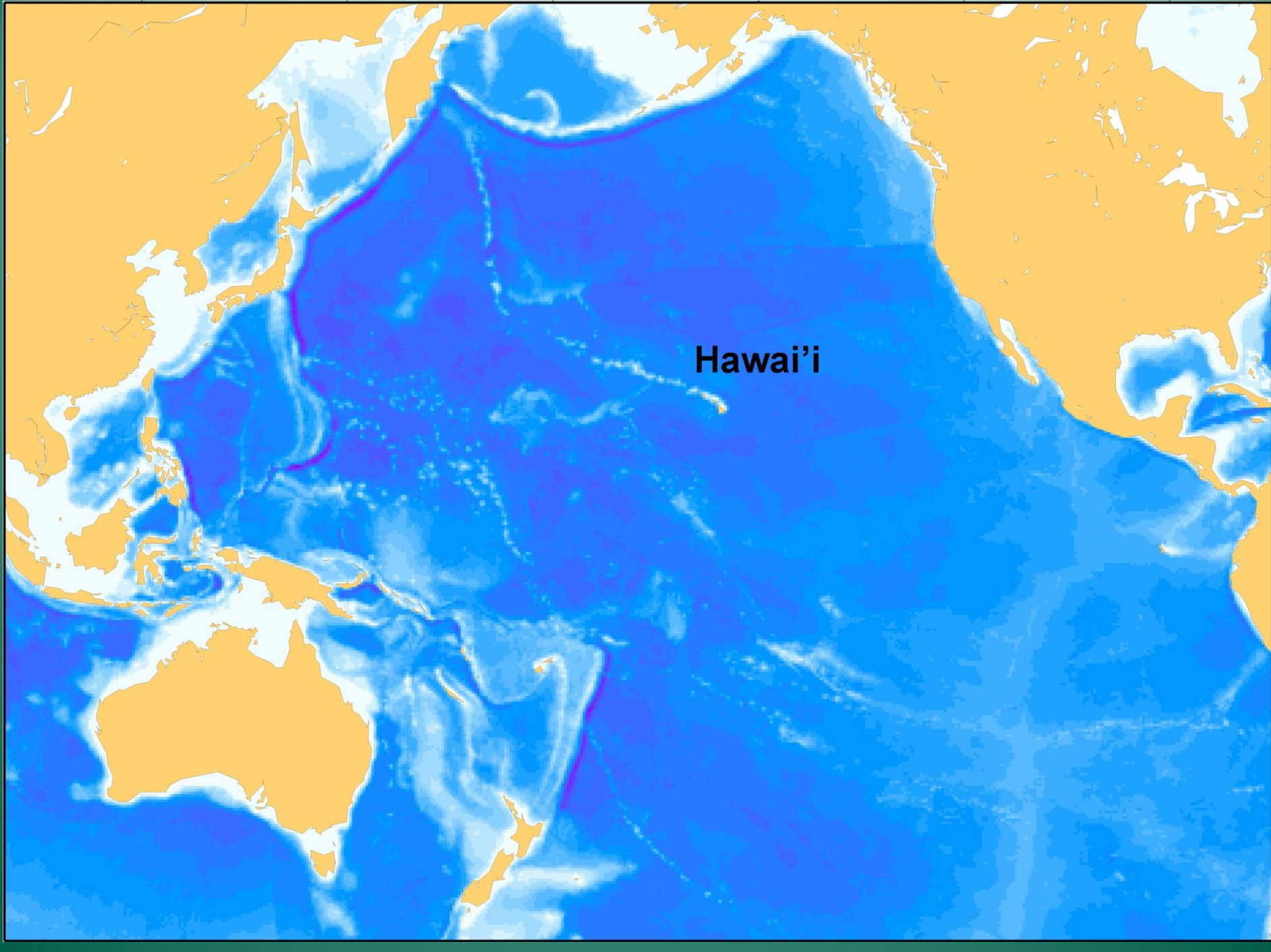


Early Program History:

**Historical initiation,
continuation, and publication
of high-value marine turtle
research data**

**NOAA
FISHERIES
SERVICE**

NOAA



Hawai'i

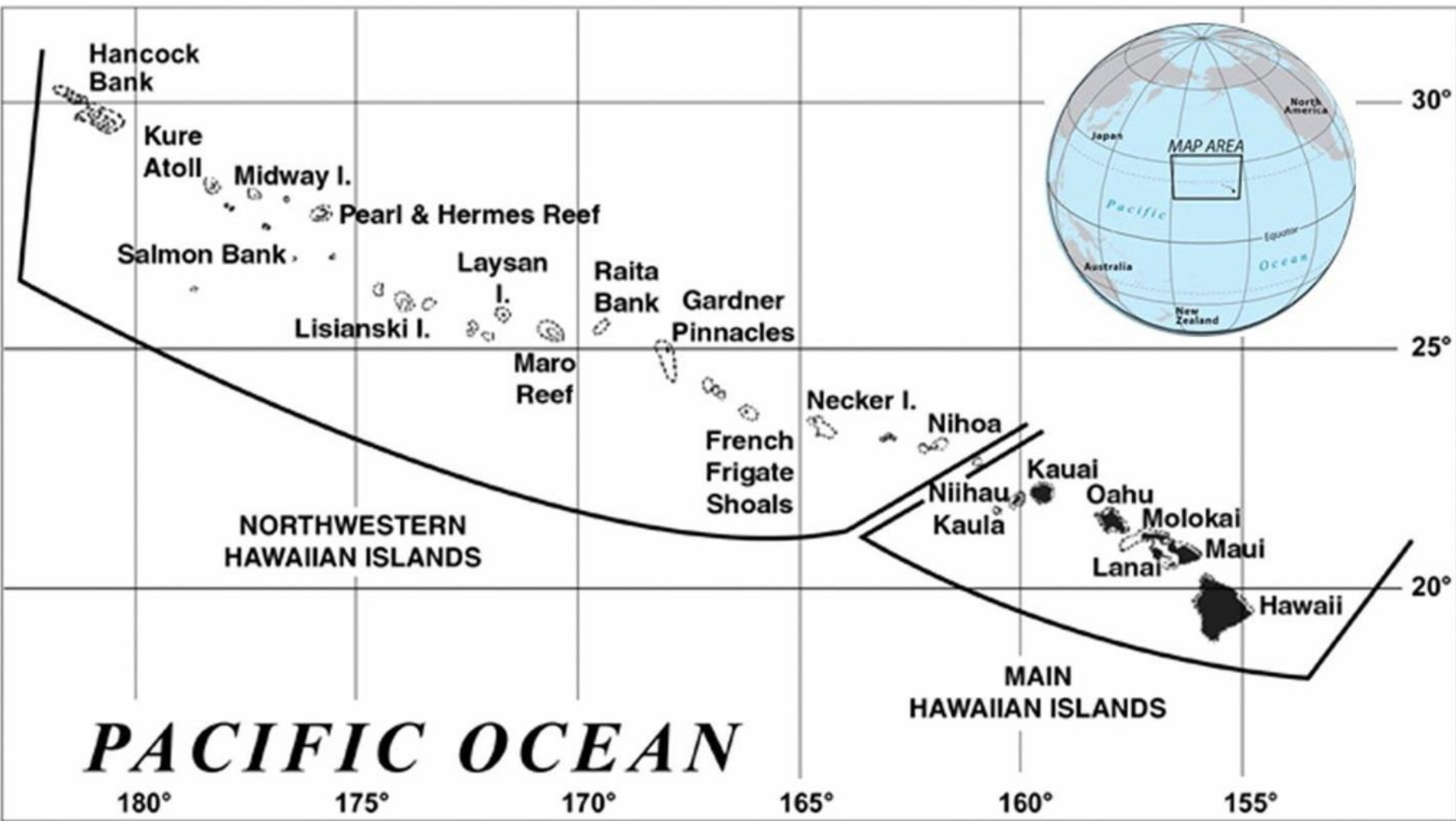


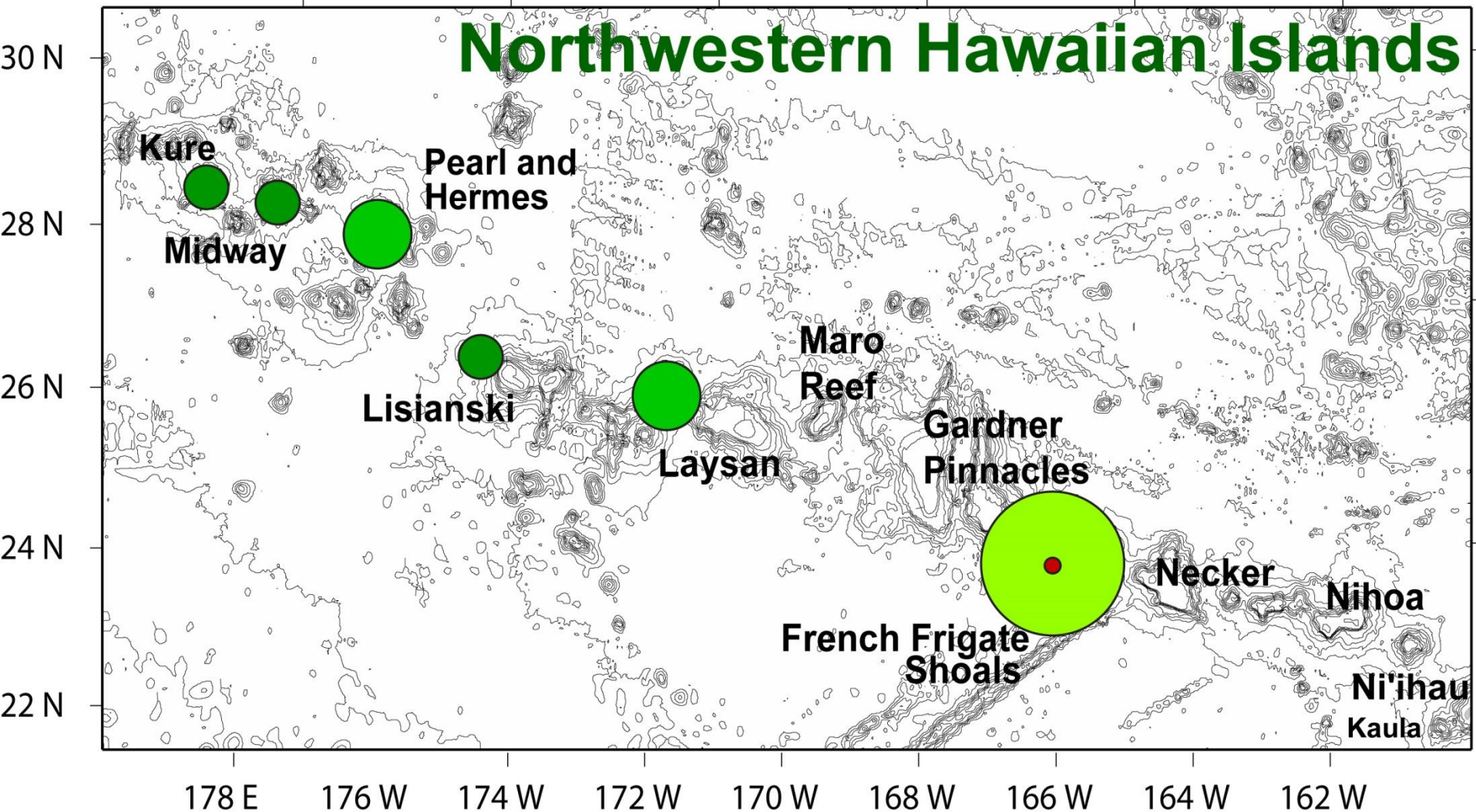
Figure 1. Hawaiian Archipelago



Seven long-term datasets

- **Nester monitoring and tagging**
- **Ocean capture/basking tagging**
- **Strandings**
- **Necropsies including pelagic by-catch**
- **Rehabilitation and release**
- **Euthanasia**
- **Satellite tracking**

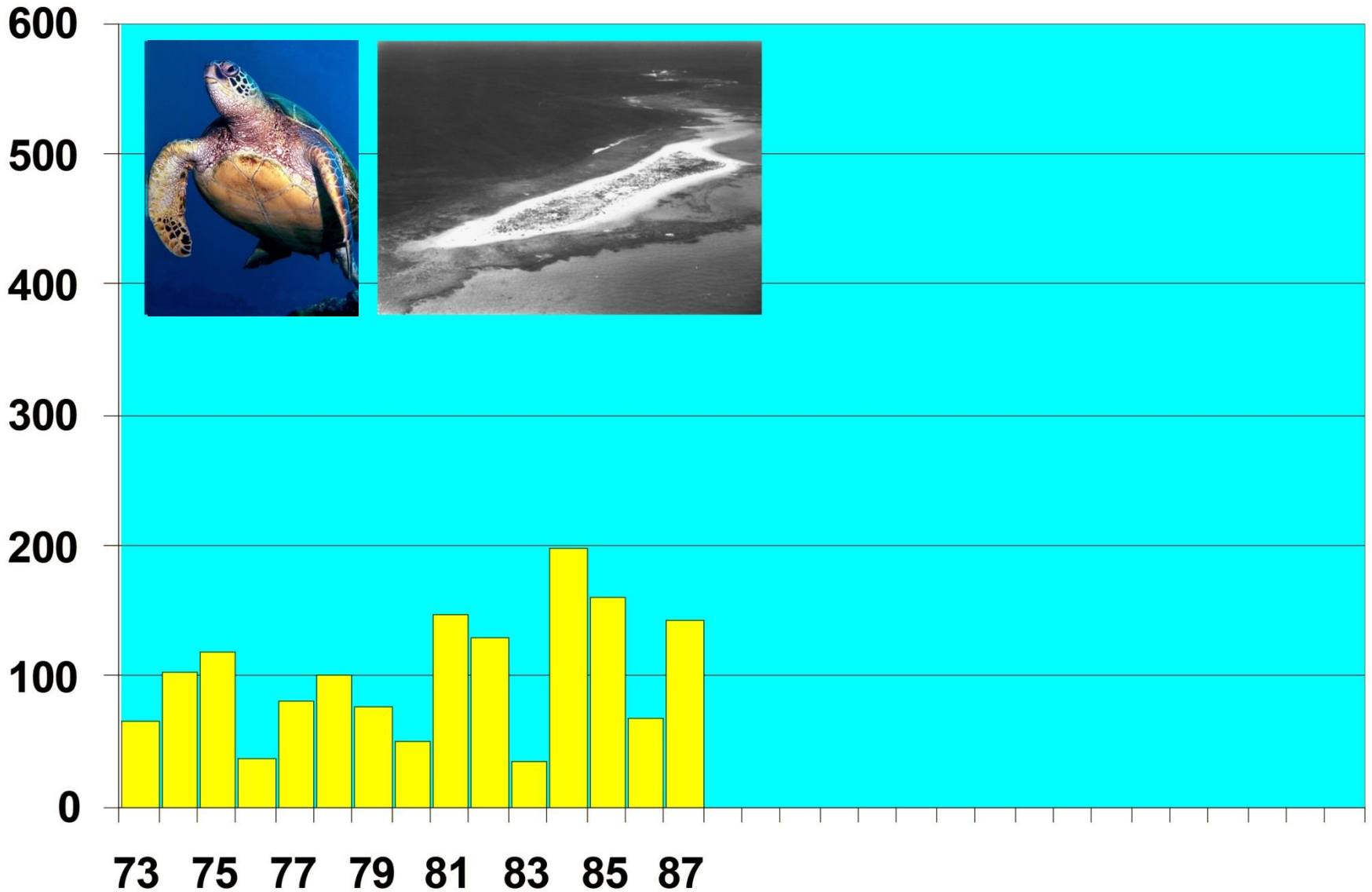
Northwestern Hawaiian Islands



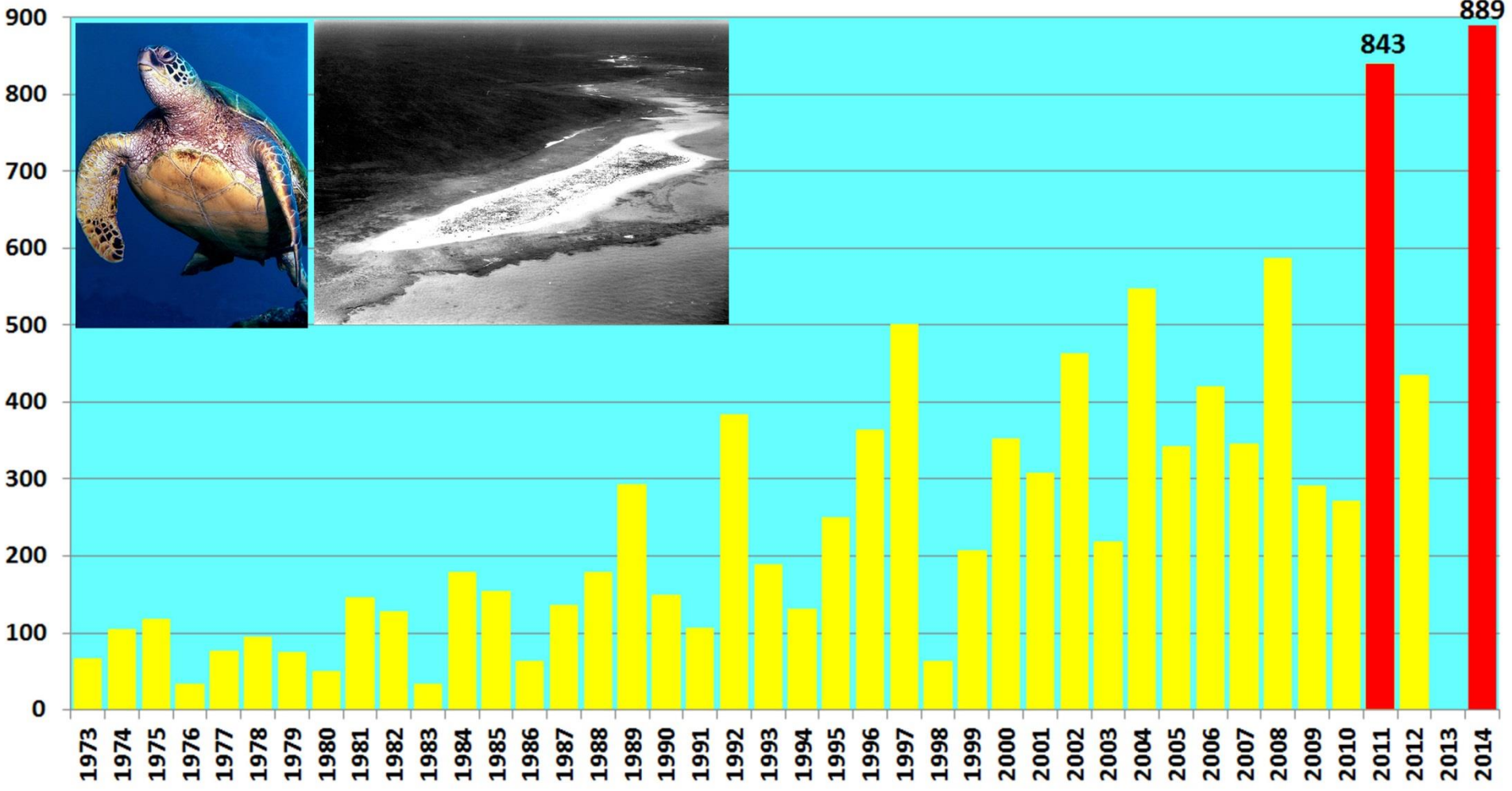




GREEN TURTLES NESTING AT EAST ISLAND



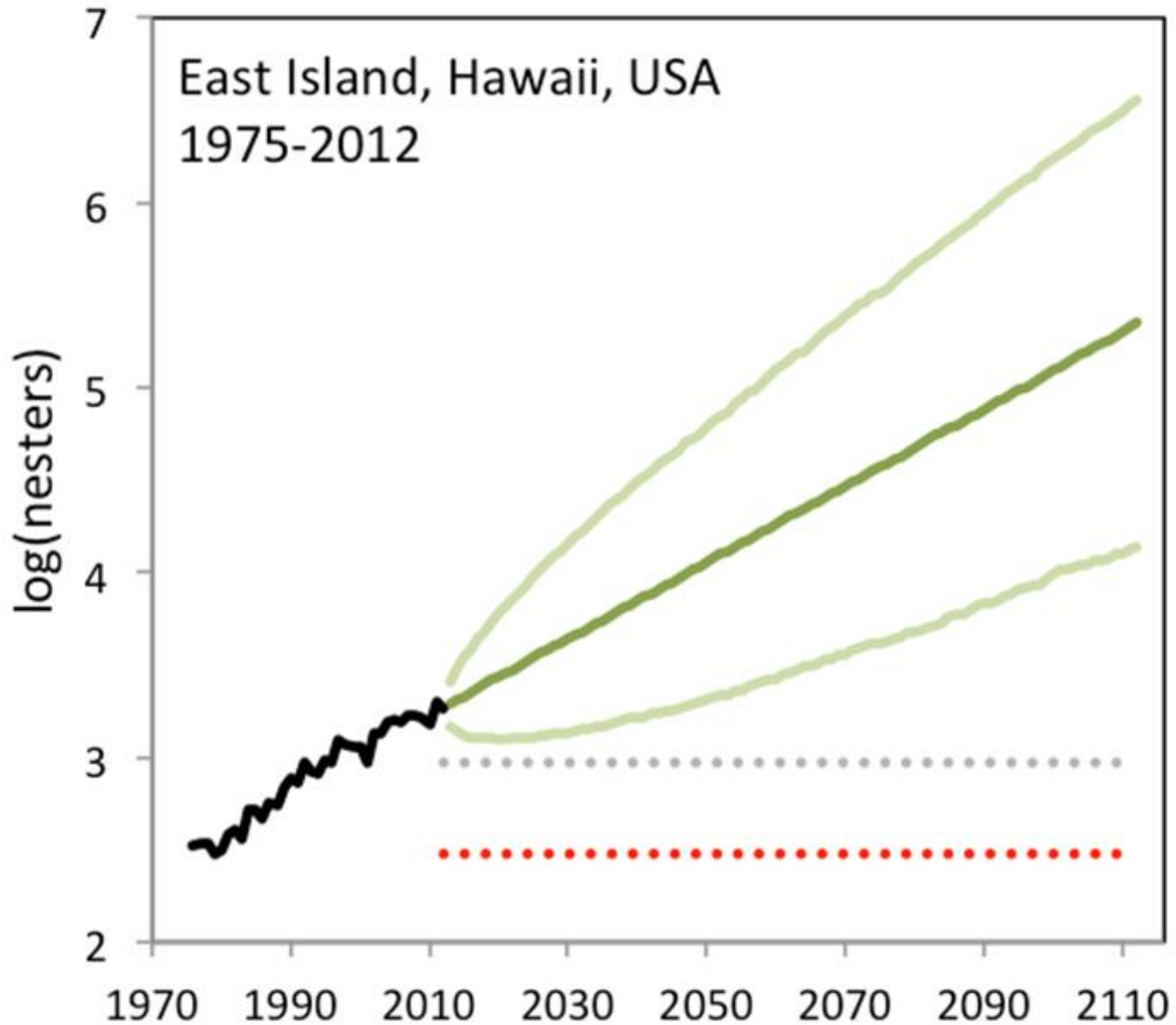
Green turtles nesting at East Island, French Frigate Shoals, 1973-2014



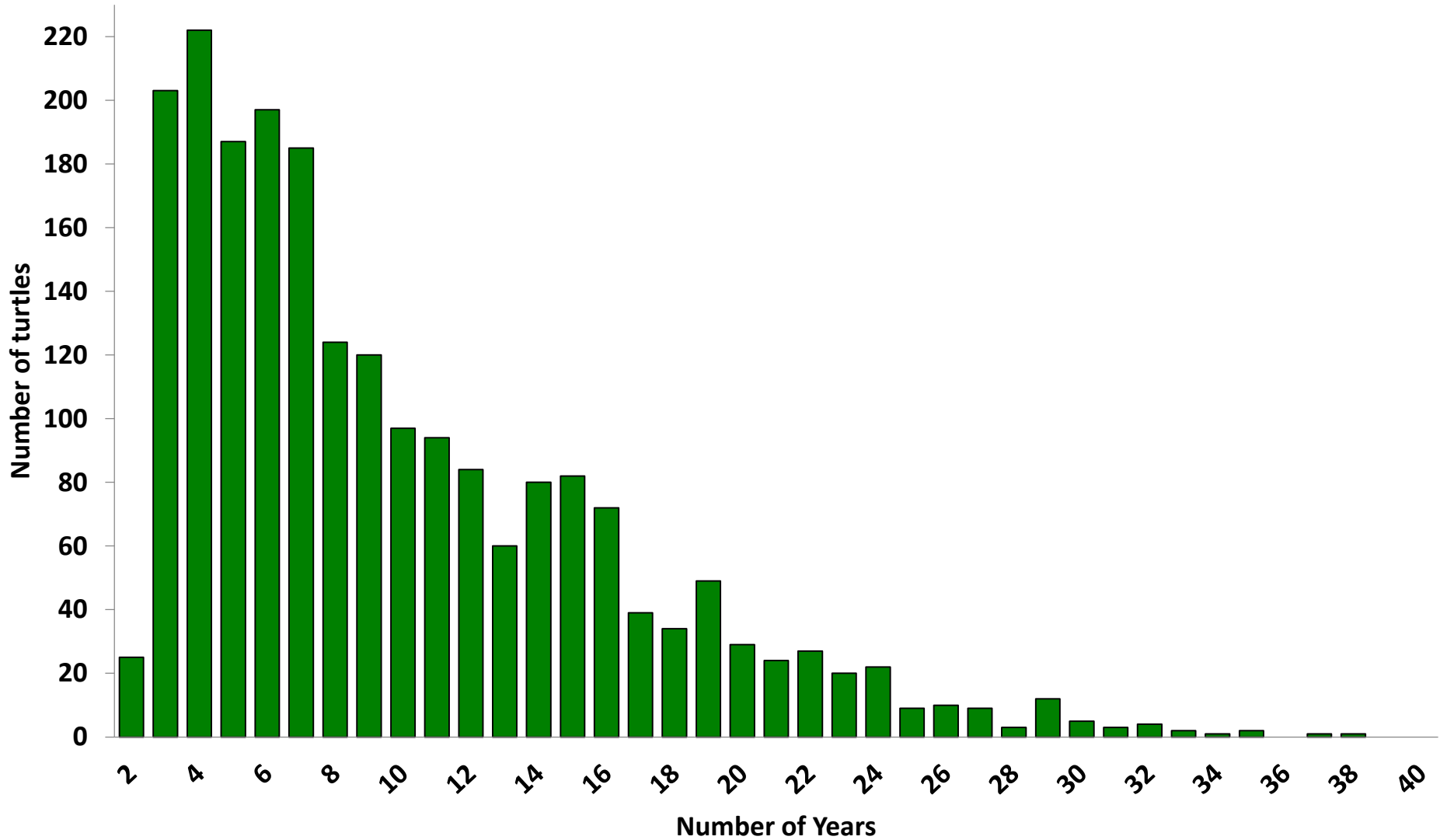
ANNUAL TREND FOR 42 SEASONS

Pacific Islands Fisheries Science Center
National Marine Fisheries Service

Stochastic Exponential Growth Model Output for East Island FFS from Seminoff et. al. 2015



Lifespan based on tagging of green turtles nesting at French Frigate Shoals



Main Hawaiian Islands

22°N

21°N

20°N

19°N

Green Turtle Nesting 1965-1980's

160°W

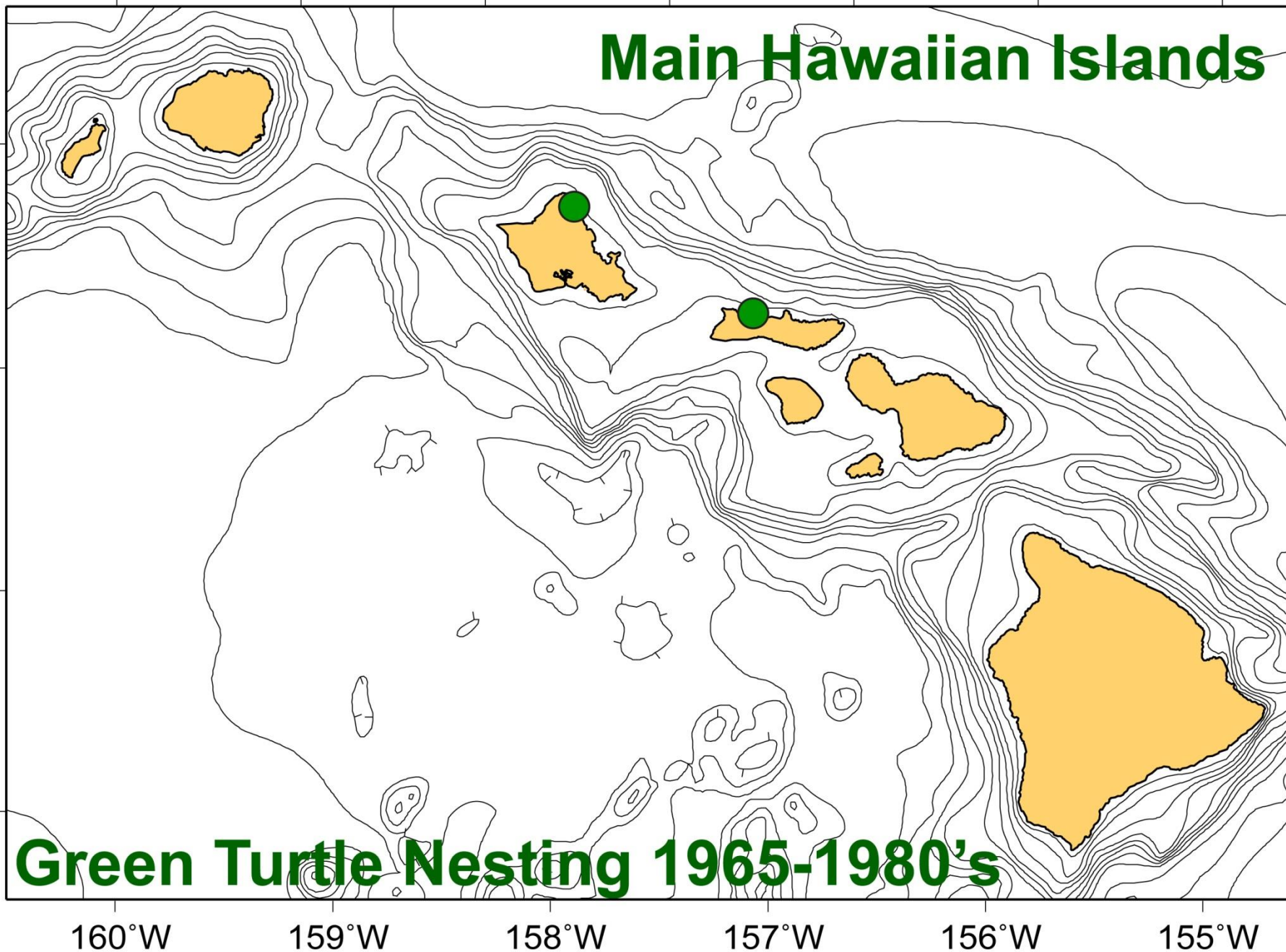
159°W

158°W

157°W

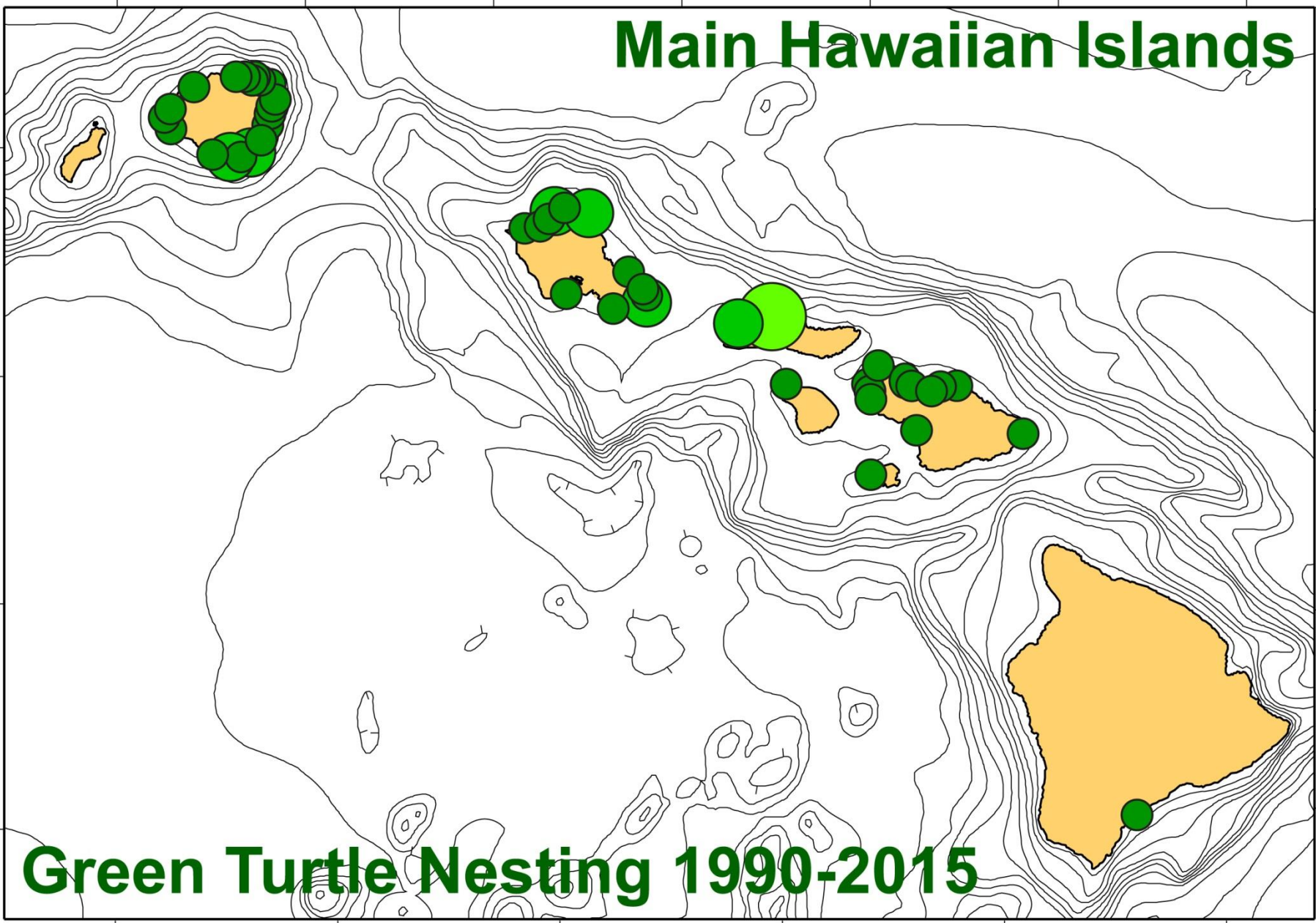
156°W

155°W



Main Hawaiian Islands

22°N
21°N
20°N
19°N



Green Turtle Nesting 1990-2015

160°W 159°W 158°W 157°W 156°W 155°W



SEA TURTLE RESEARCH
IN PROGRESS
NOAA
MENT

XS

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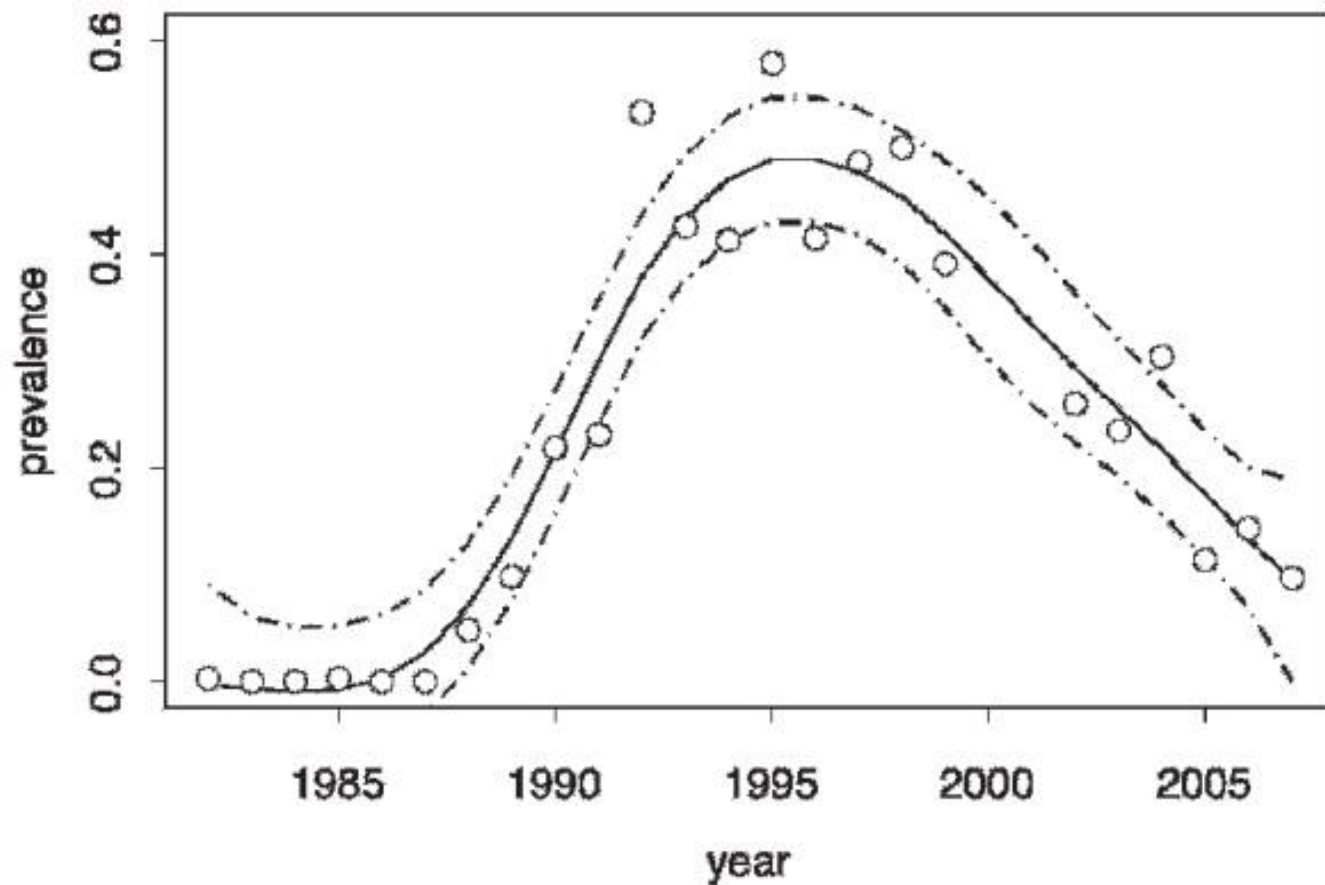


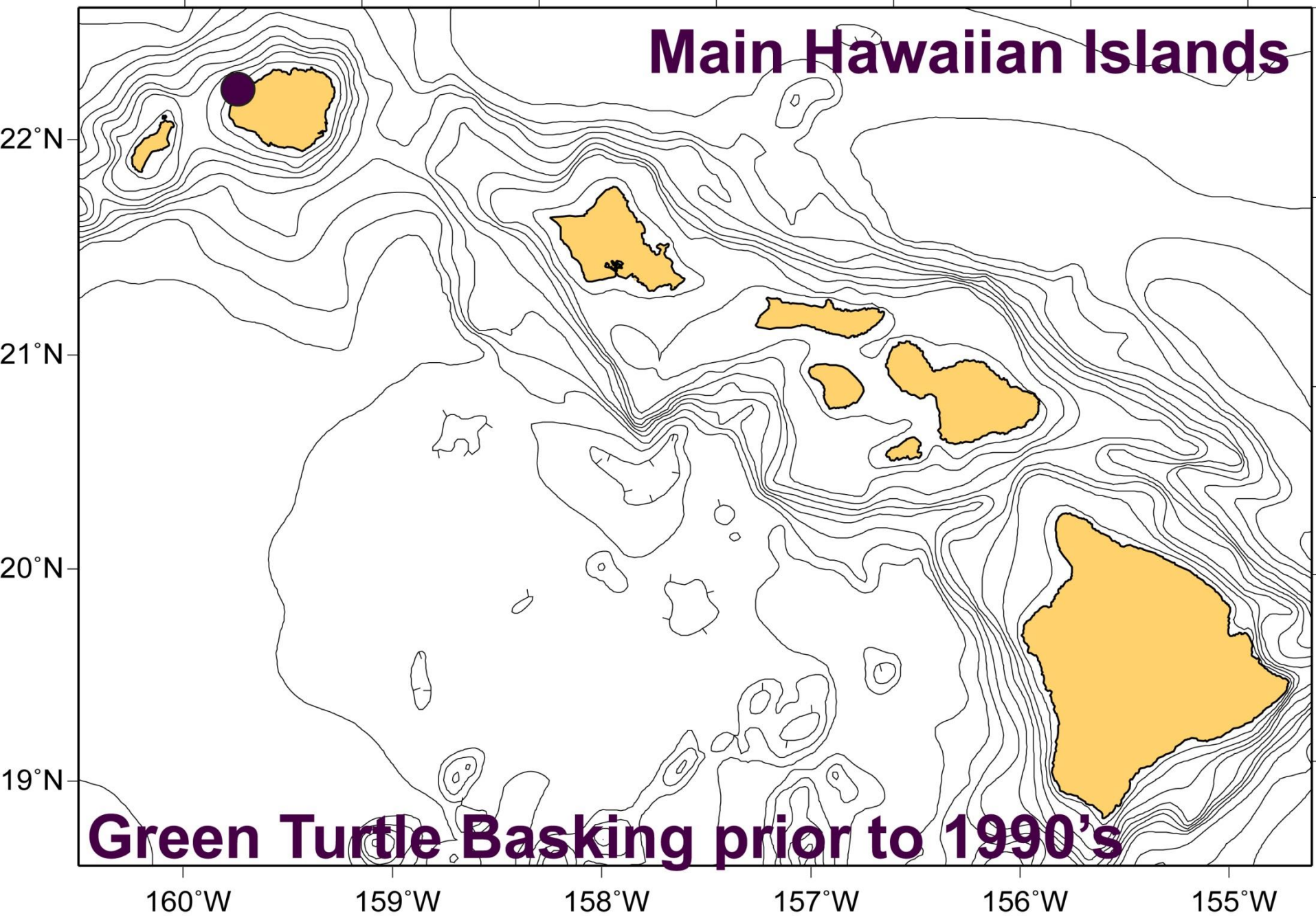
FIGURE 2. Epidemic curve with three phases: 1) rapid increasing phase (1988–1991), 2) peak phase (1992–1998), 3) slow decline phase from 1999 onward. Solid curve=smoothing spline fit, dashed curves=95% Bayesian confidence intervals, dots =apparent prevalence estimates.







Main Hawaiian Islands



Main Hawaiian Islands

22°N

21°N

20°N

19°N

160°W

159°W

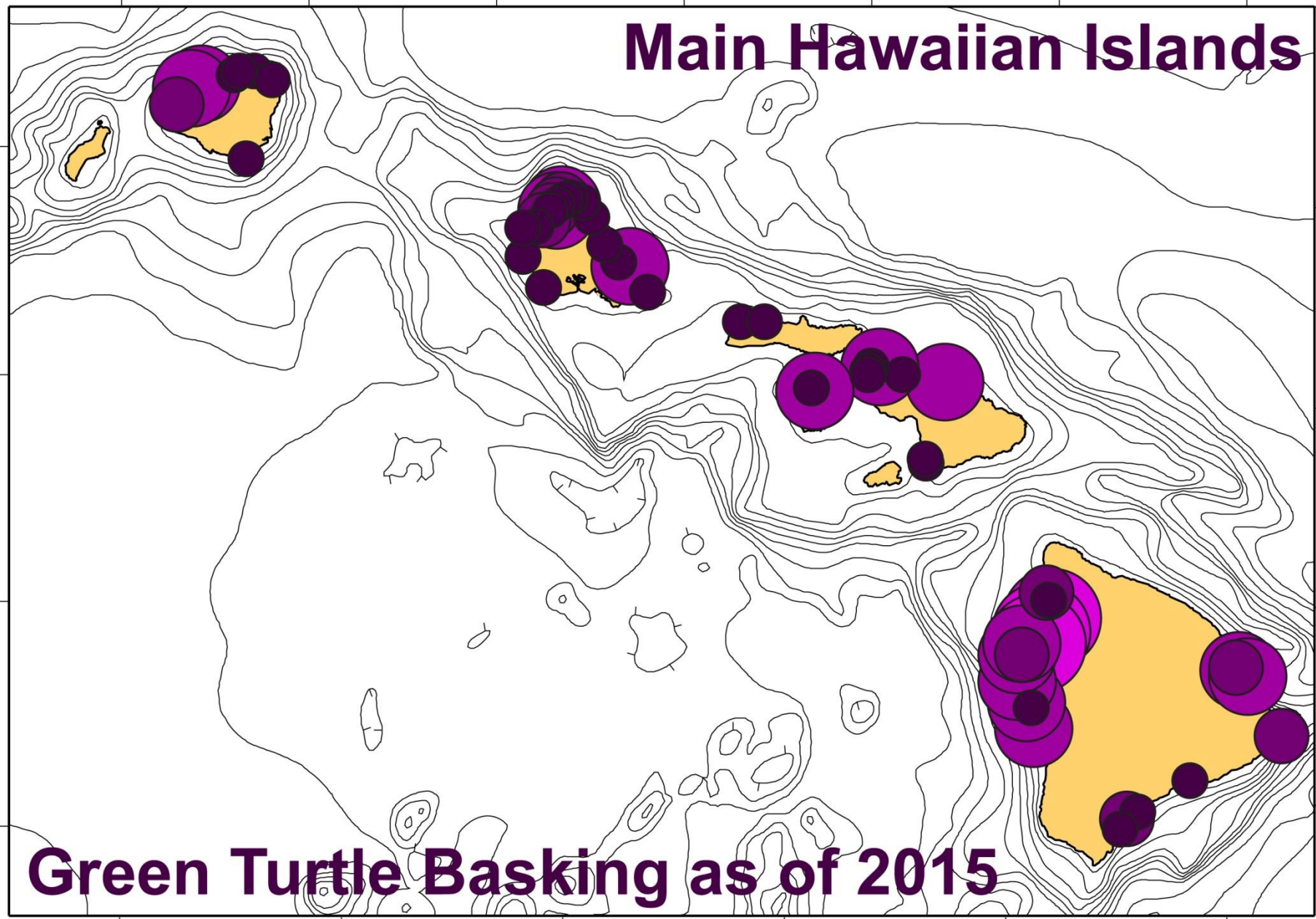
158°W

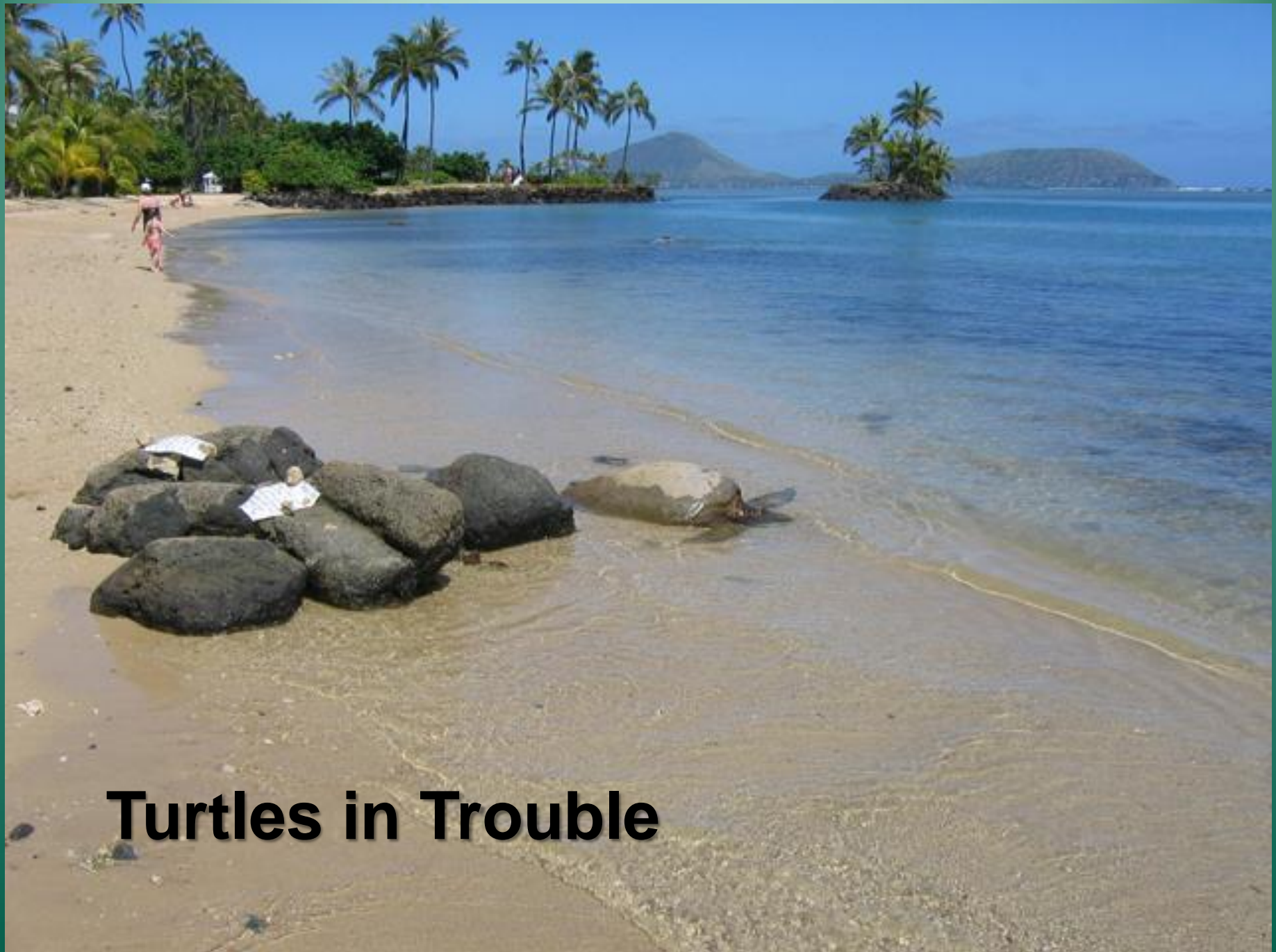
157°W

156°W

155°W

Green Turtle Basking as of 2015

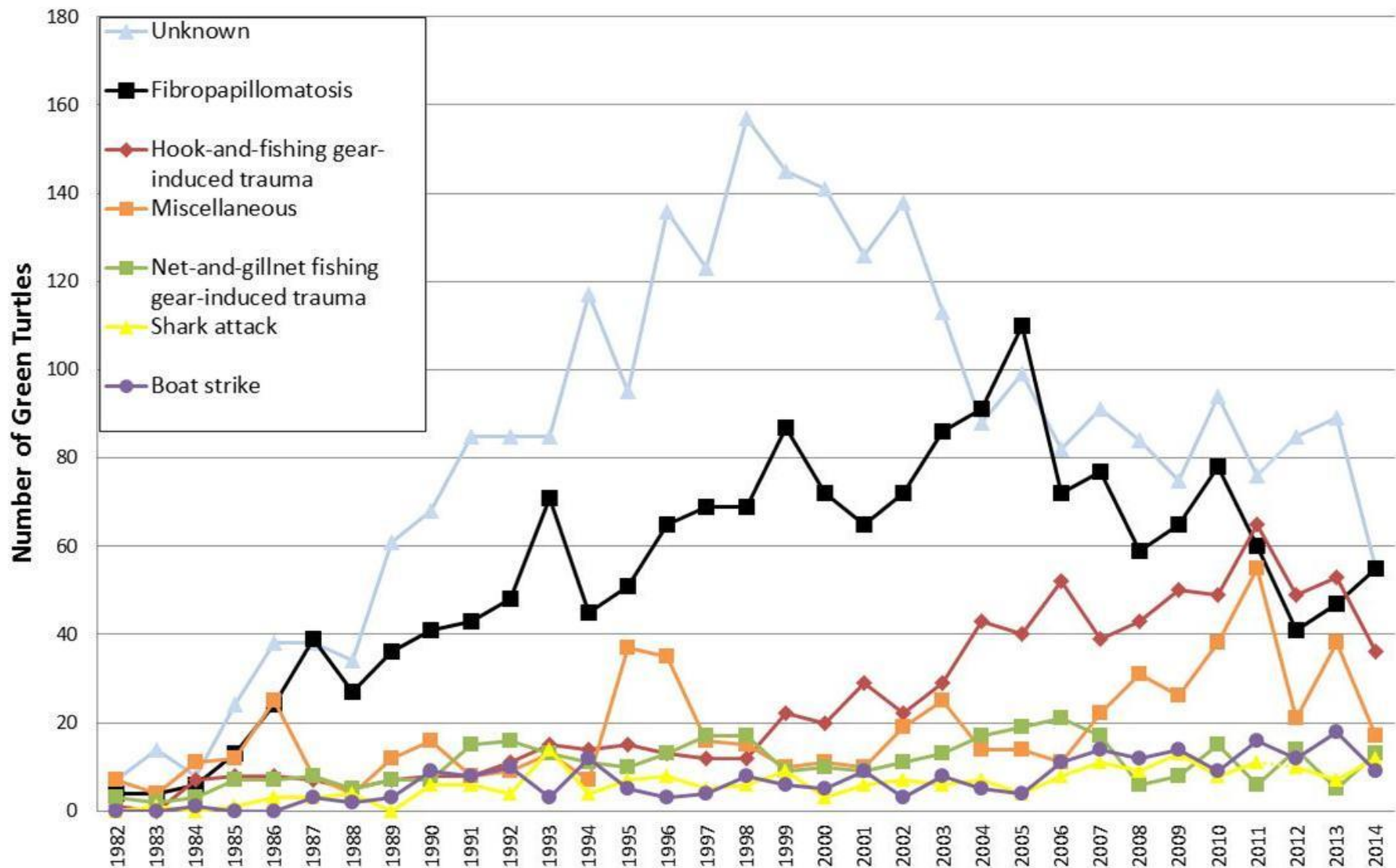




Turtles in Trouble



1982-2014 All Hawaiian Green Turtle Stranding Events (n=6724)



Repair

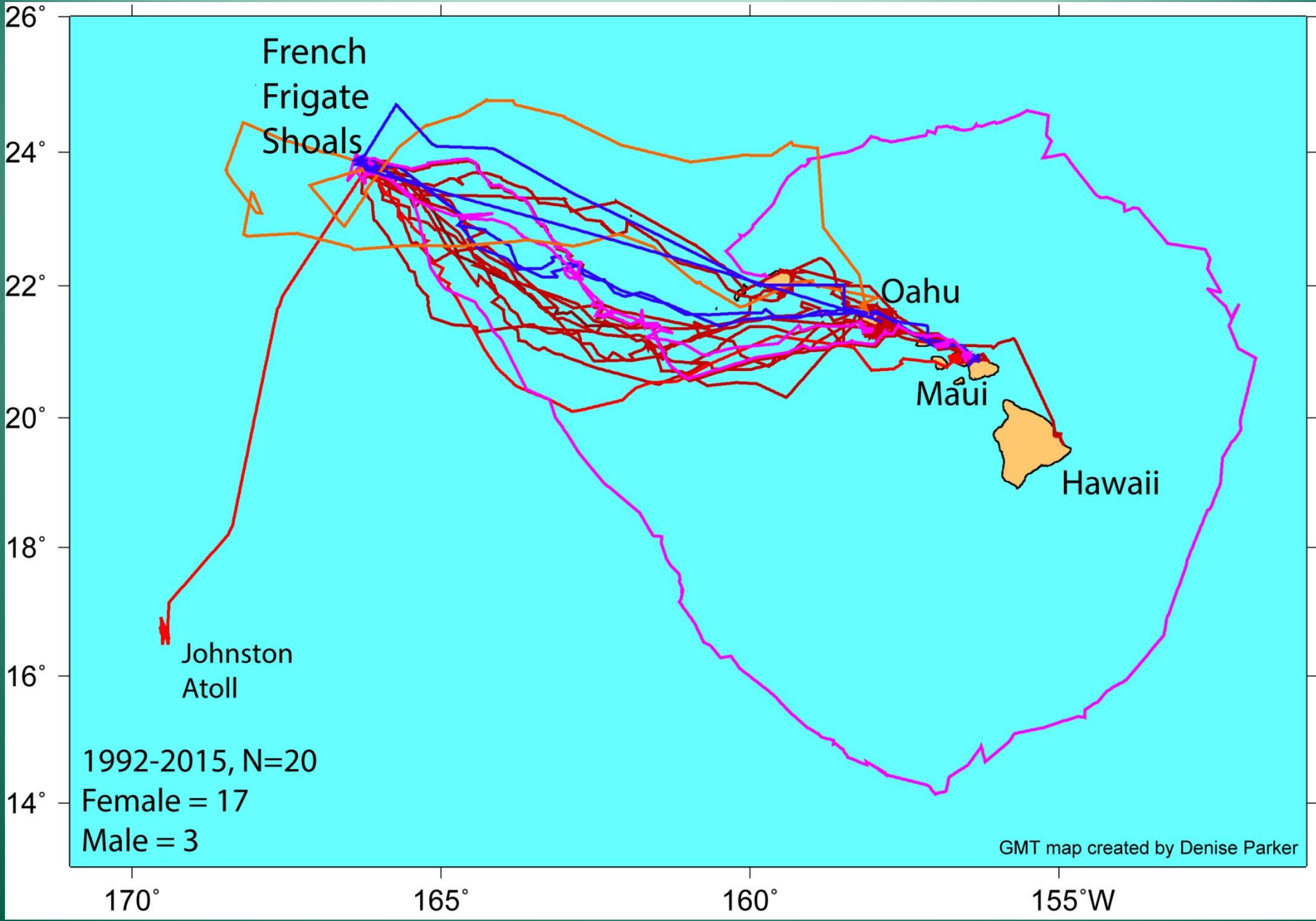


Release



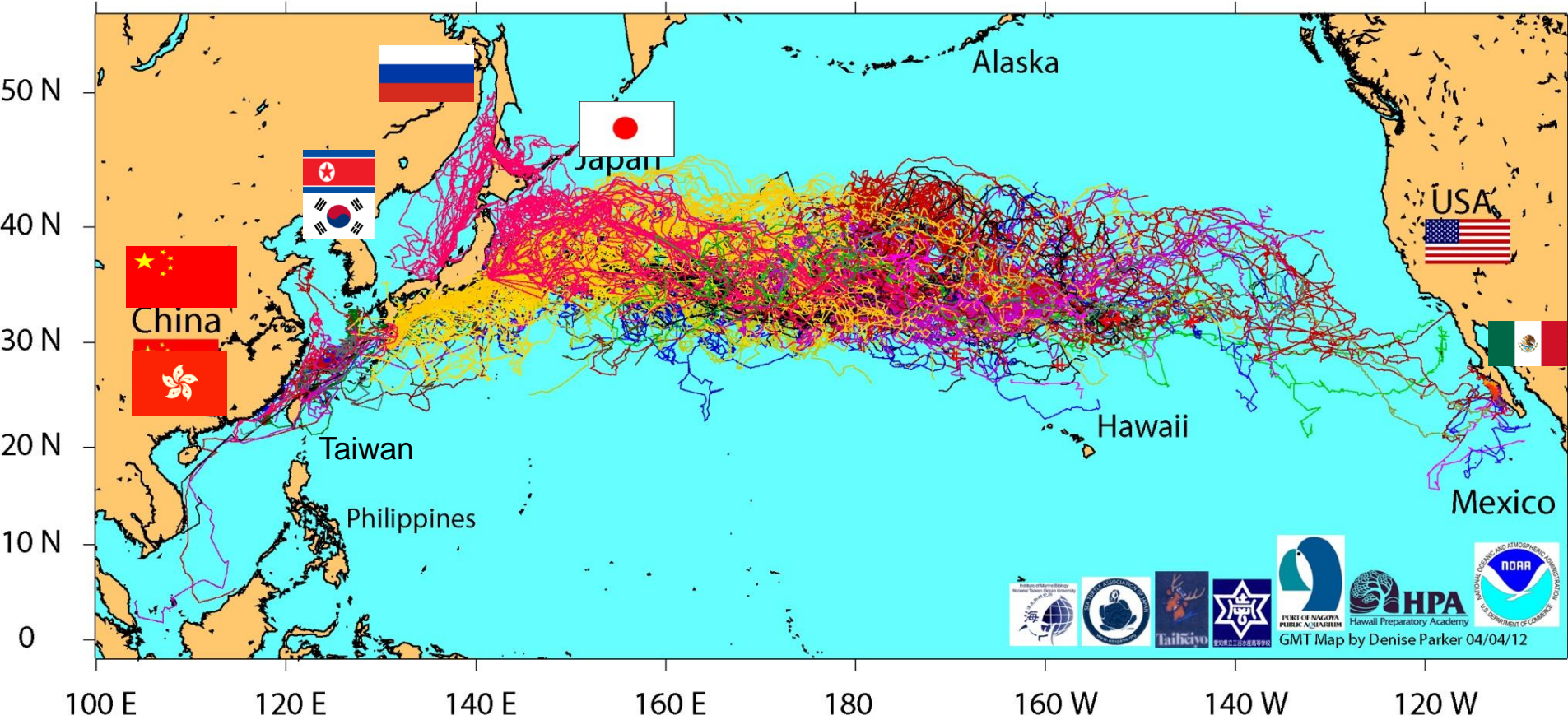
Satellite tracking



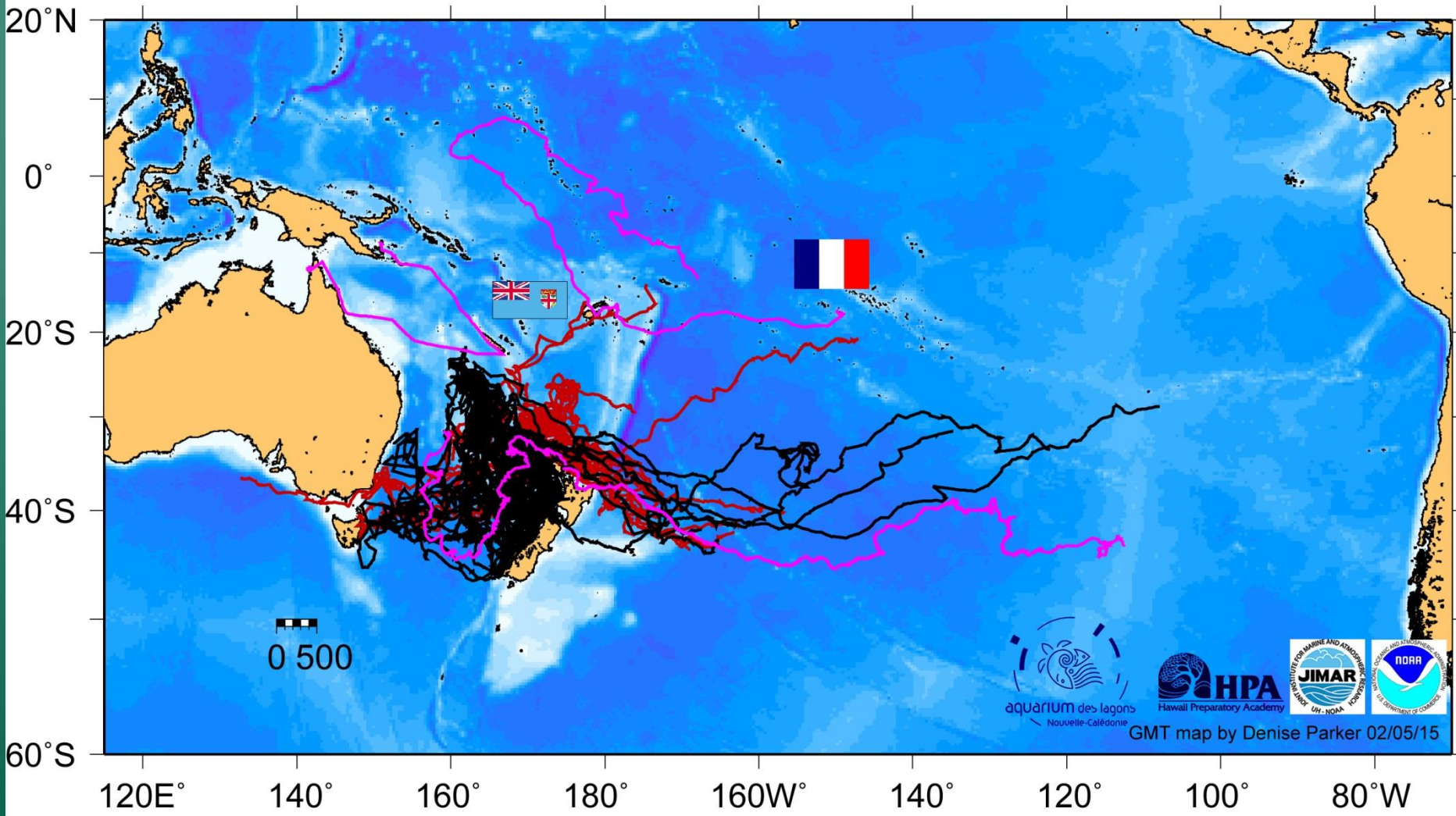




1997-2012 Satellite Tracking of Pelagic North Pacific Loggerheads



2008-2014 Satellite tracks for loggerhead turtles released in the South Pacific



CHINA/USA Sea Turtle Workshop NOAA CAFS USGS

Hawaii 2014



2015 International Summit on Fibropapillomatosis
of Marine Turtles: Global Status, Trends, and
Population Impacts



Hawaii





The Shifting Sands of Time