

An underwater photograph of a green sea turtle swimming in clear blue water. The turtle is the central focus, moving towards the right. The water is filled with various pieces of debris, including leaves, twigs, and small particles, scattered throughout the scene. The lighting is bright, creating a clear view of the turtle and the surrounding environment.

# Growth Rates of Green Turtles (*Chelonia mydas*) At Several Sites on Hawaii Island From 1995 to 2018

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# METHODS:

- SCL USED
- MEASURED TO NEAREST MM
- GROWTH INTERVALS  $> .99$  YEARS COUNTED
- SIZE CLASSES AT 10 CM INTERVALS (30, 40, 50, ETC.) AND A TURTLE WAS RECORDED AS BELONGING TO ITS RECAPTURE SIZE CLASS
- GROWTH RATES CALCULATED AS CM/YEAR
- GROWTH INTERVAL DURATION IS NOT CONSIDERED IN THE AVERAGE GROWTH RATES PRESENTED



# Body Condition of Hawaiian Green Turtles

Robust – Normal



Mild Emaciation



Moderate Emaciation

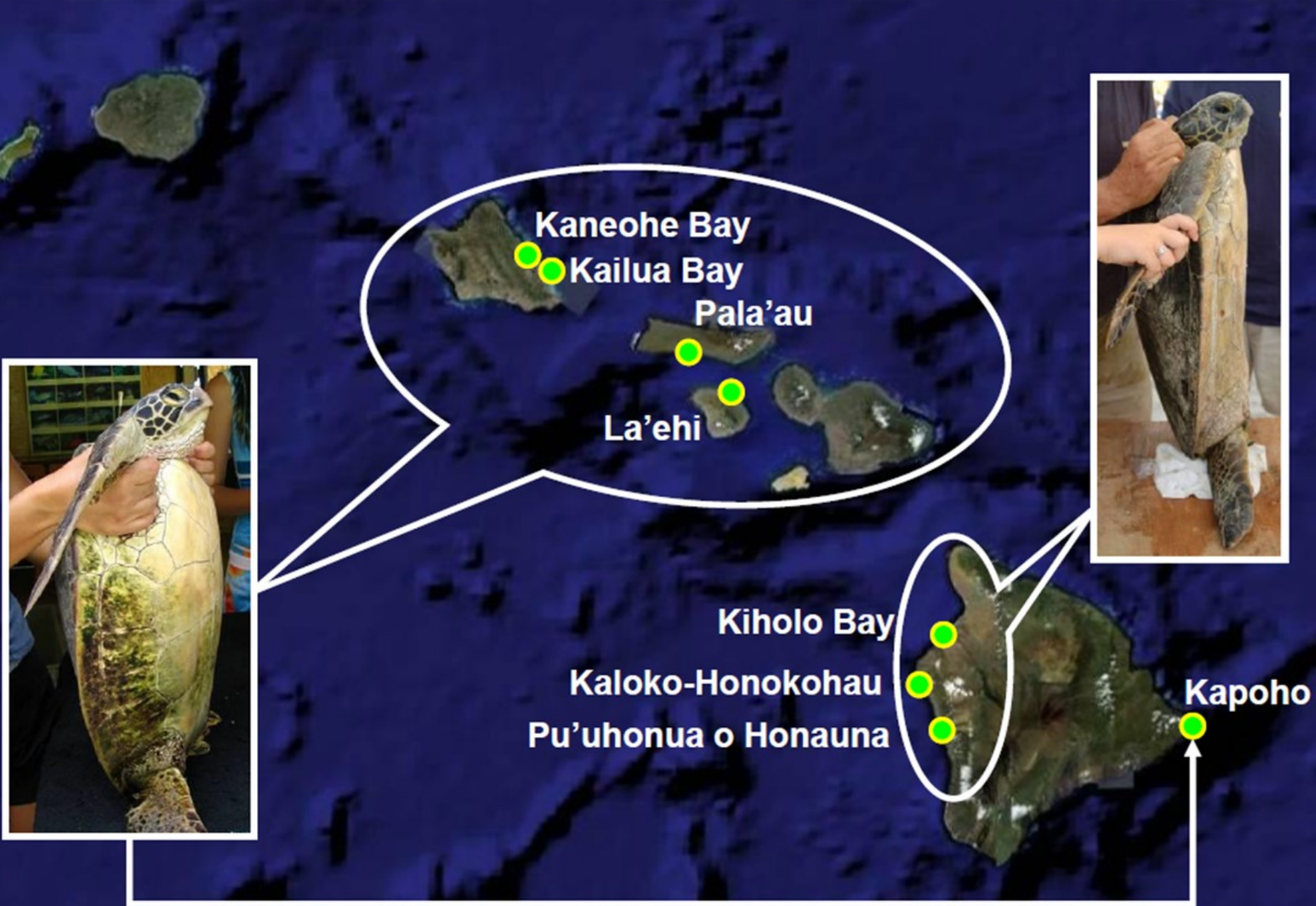


Severe Emaciation





# Body Condition by Site



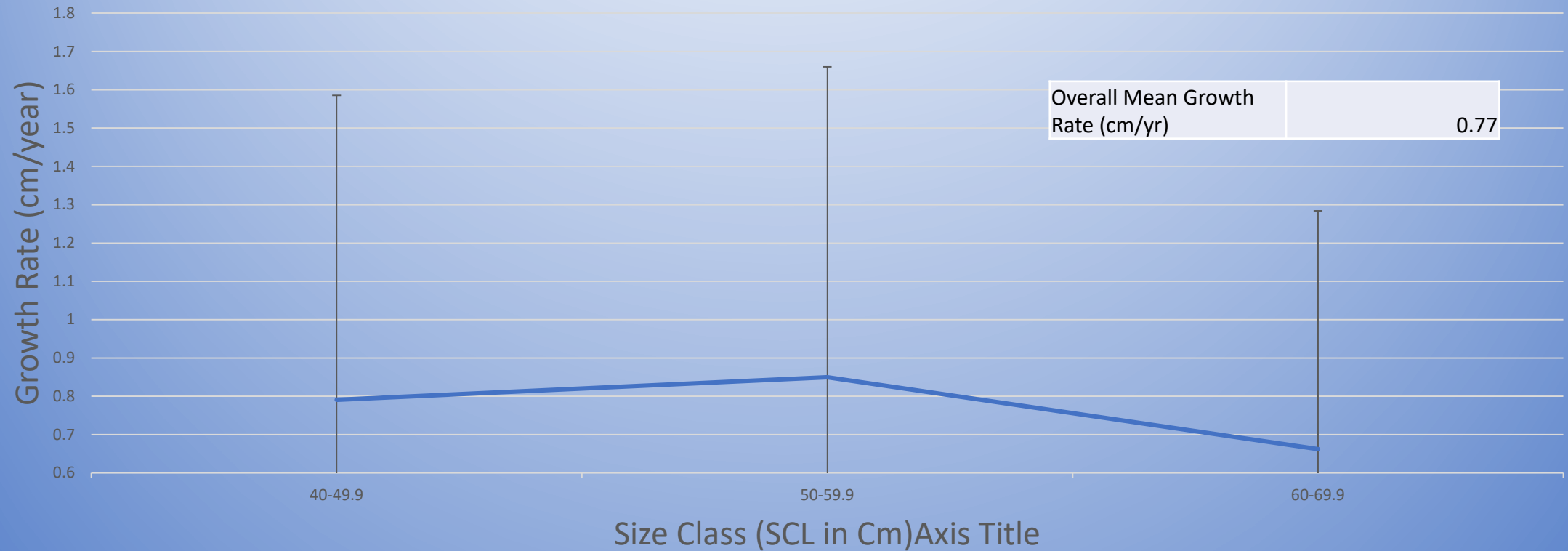


# LOCATIONS OF TURTLES CAPTURED



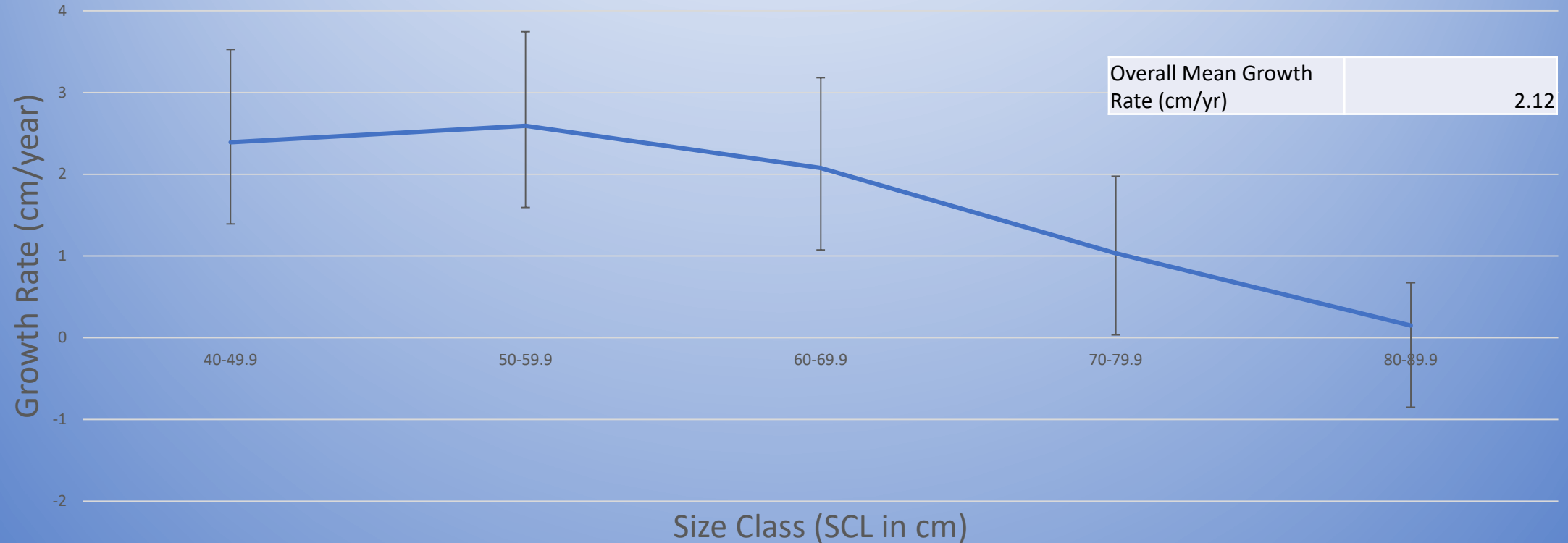
# Kaloko-Honokohau National Historical Park Hawaii Island, Hawaii

Average growth rate (cm/year) plus standard deviation for green turtles captured at Kaloko-Honokohau National Historical Park, Hawaii Island from 1999 to 2018 arranged by size class.



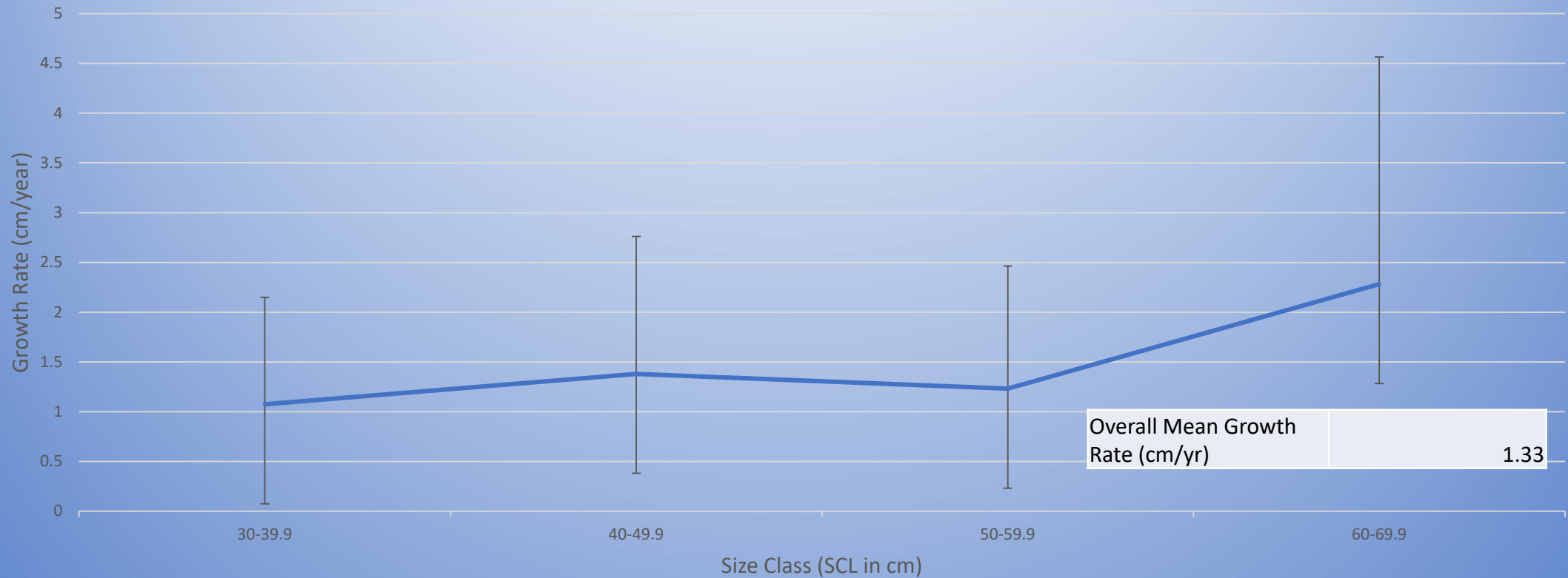
# Kapoho, Hawaii Island

Average growth rate (cm/year) plus standard deviation for green turtles captured at Kapoho, Hawaii Island from 2000 to 2018 arranged by size class.



# Kahalu'u Beach State Park, Hawaii Island

Average growth rate (cm/year) plus standard deviation for green turtles captured at Kahalu'u Beach State Park, Hawaii Island from 1995 to 2015 arranged by size class.





# Kiholo Bay, Hawaii Island

Average growth rate (cm/year) plus standard deviation for green turtles captured at Kiholo, Hawaii Island from 1980 to 2018 arranged by size class



Overall Mean Growth Rate (cm/yr)	0.732758621
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# Hualalai, Hawaii Island

Overall Mean Growth Rate (cm/yr)	0.77
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Average growth rate (cm/year) plus standard deviation for green turtles captured at Hualalai, Hawaii Island from 2005 to 2011 arranged by size class.



Overall Mean Growth Rate (cm/yr)	0.73
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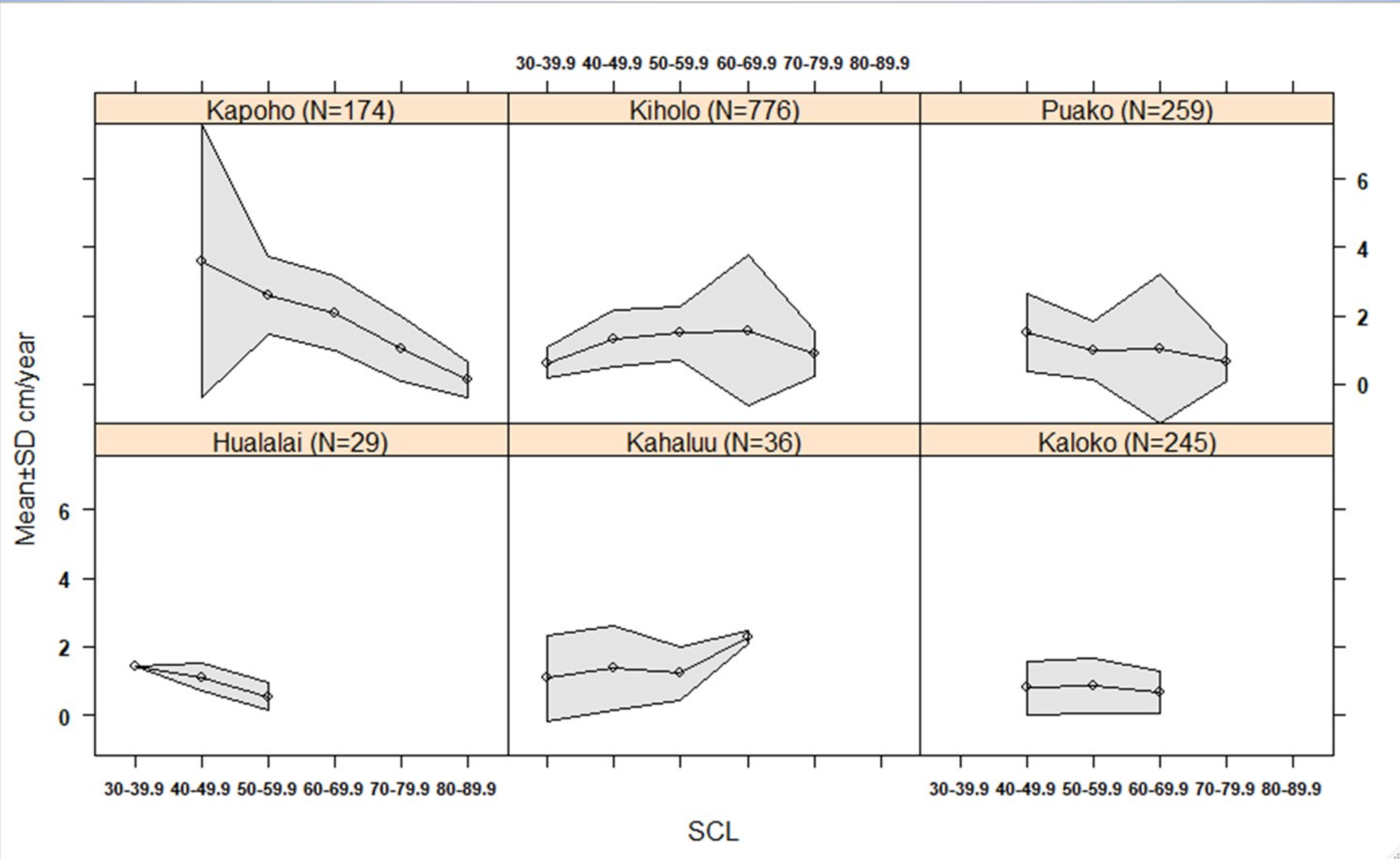
# Puako, Hawaii Island

Average growth rate (cm/year) plus standard deviation for green turtles captured at Puako, Hawaii Island from 1991 to 2015 arranged by size class.

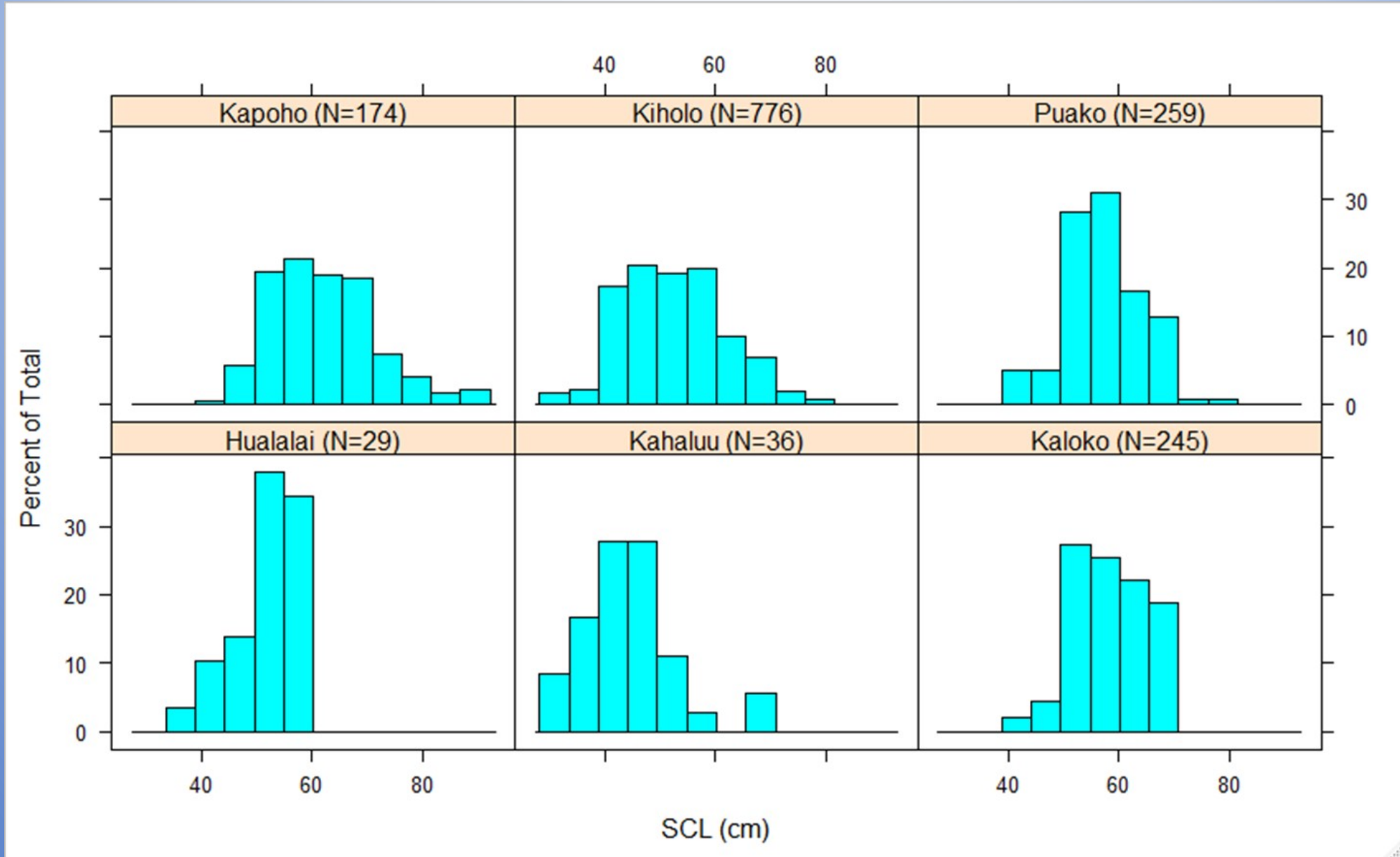




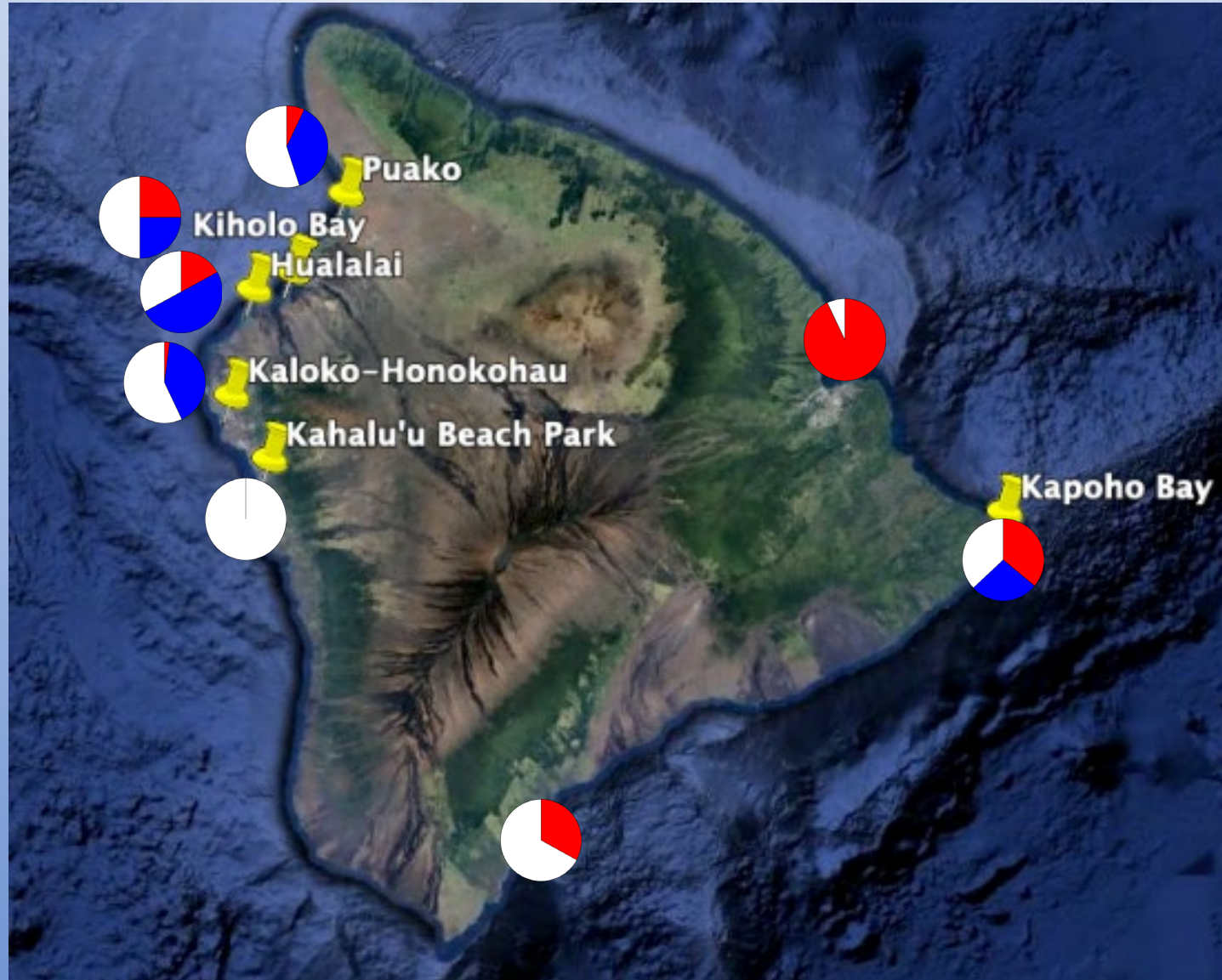
# Overall growth rates highest at Kapoho for small sizes



# Larger turtles not evident at Hualalai, Kahaluu, and Kaloko



FP more a problem E whereas starvation more W HI



- FP
- Starvation
- Other



# Starvation more likely with lower growth rates

