

## Migratory connectivity and philopatry of cownose rays *Rhinoptera bonasus* along the Atlantic Coast, USA

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Marine Ecology Progress Series 602: 197–211 (2018)

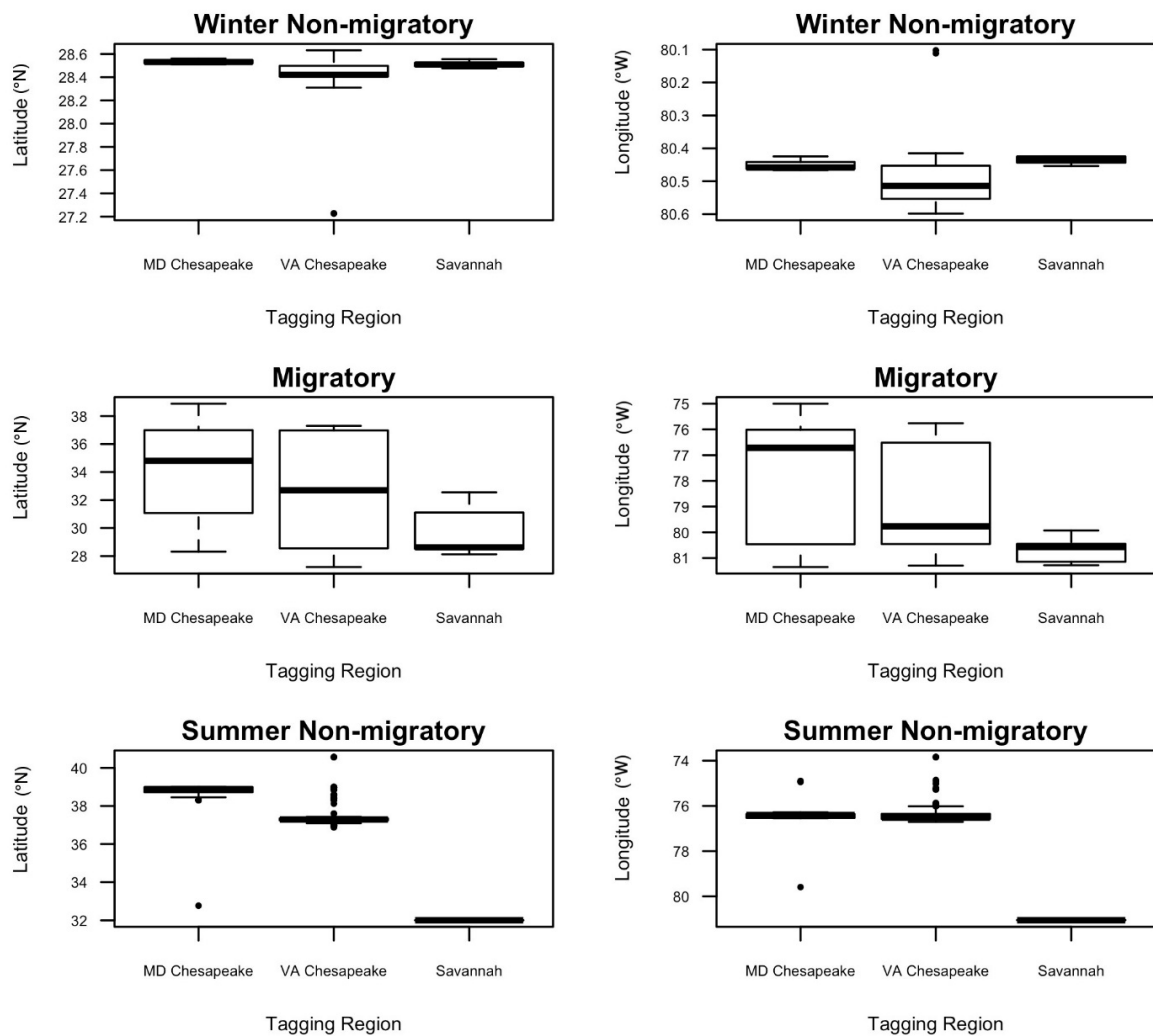


Fig. S1. Boxplots of latitude and longitude (decimal degrees) of tagged cownose rays *Rhinoptera bonasus*. Data grouped by tagging region and behavioral period including winter non-migratory (Resident and Ranging behavioral states combined), migratory (spring and fall), and summer non-migratory periods.

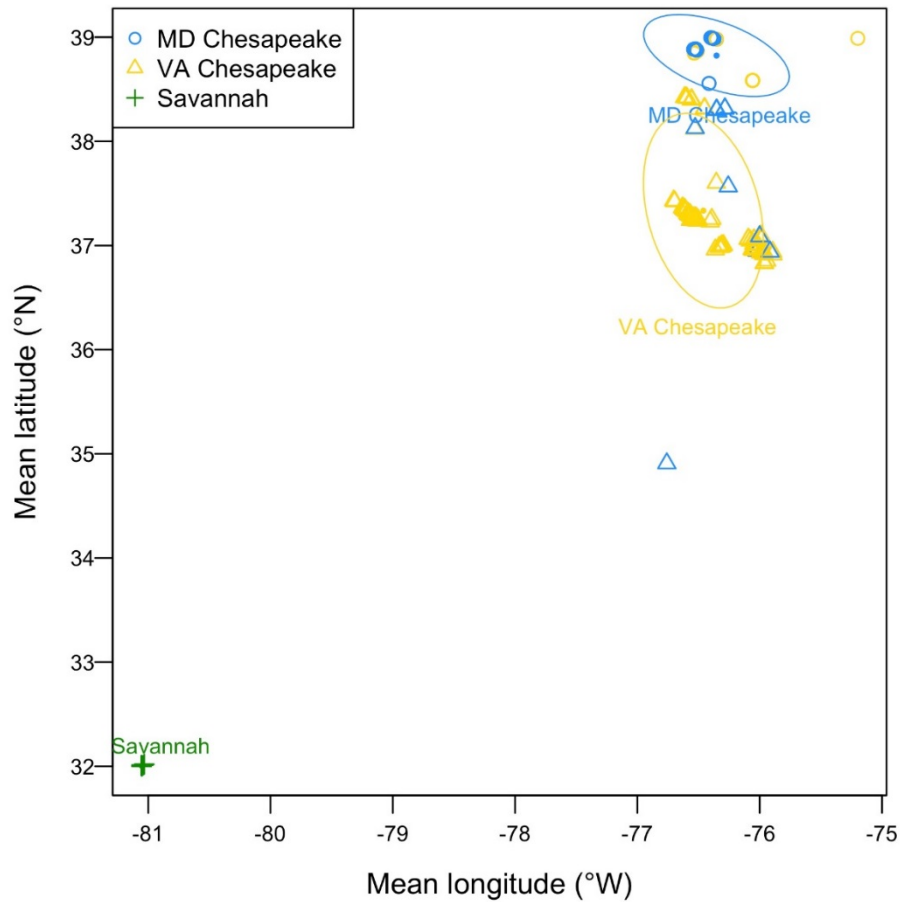


Fig. S2. Mean latitude and longitude of tagged cownose ray *Rhinoptera bonasus* daily positions during May-July. Symbol colors correspond to original assigned tagging region and symbol shapes correspond to predicted summer region based on linear discriminant analysis (LDA) classifications. Ellipse (95% confidence interval) and center point (mean) colors correspond to LDA classifications of predicted summer region. For example, yellow circles represent rays originally tagged in Virginia (indicated by yellow symbol) that were assigned by LDA to Maryland (symbol is a circle), and which were grouped within the Maryland 95% confidence ellipse (blue ellipse). Note that the Savannah ellipse is tiny and obscured by the symbols for the two Savannah rays.

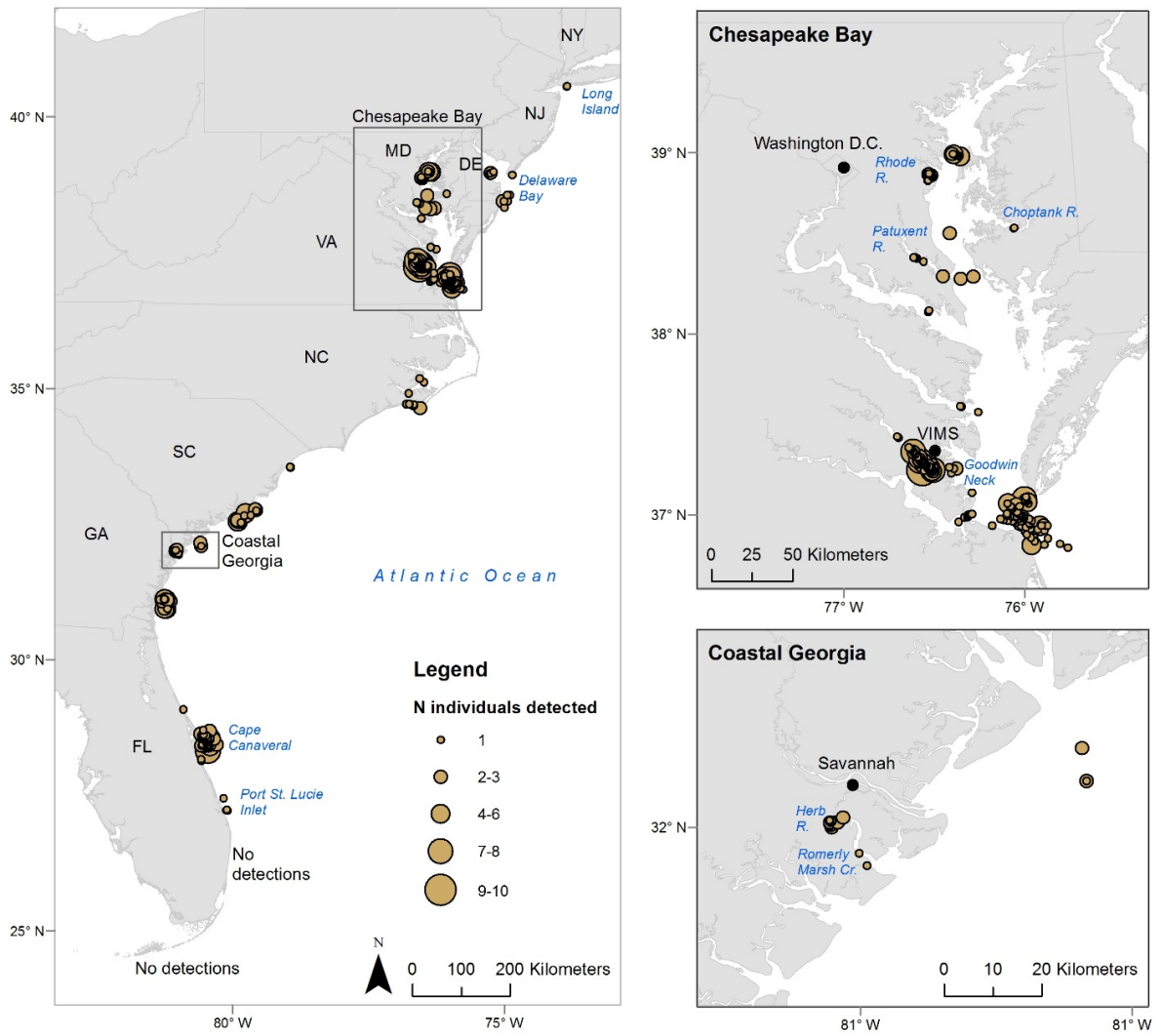


Fig. S3. Number (N) of individual tagged cownose rays *Rhinoptera bonasus* detected on each acoustic telemetry receiver with at least one tag detection. Note that the locations of acoustic receivers with zero ray detections are not shown because there is no comprehensive list of receiver locations for this region.