Supplementary material Text S1: Nocturnal activity recorded in roseate tern

We identified three nocturnal trips from rt14 occurring during three different nights. Two of the trips were long, reaching a maximum distance of 13.7 km and 15.4 km and lasting 4.5 and 6.8 hours, respectively. Indeed, these two trips were the two longest trips recorded across all birds. The third night trip was only 20 min long and had a maximum distance of only 300 m from the colony. RST analyses suggest that the purpose of the night travel was different from that observed during daylight hours. During the longest trip undertaken by rt14, the bird appeared to have rested presumably on the sea, or on a shoal or an exposed rock (Fig. S1), although no such feature could be identified using Google Earth. This "resting" period lasted 5 hours and 50 minutes after the bird had travelled to the location from the colony for 25 min, and before initiating its travel back within 35 min, a period interspaced with foraging bouts. The other long night trip of rt14 included foraging activity interspaced with travel and resting bouts. Again, an area at sea to the west of the colony appeared to have been used primarily for resting.

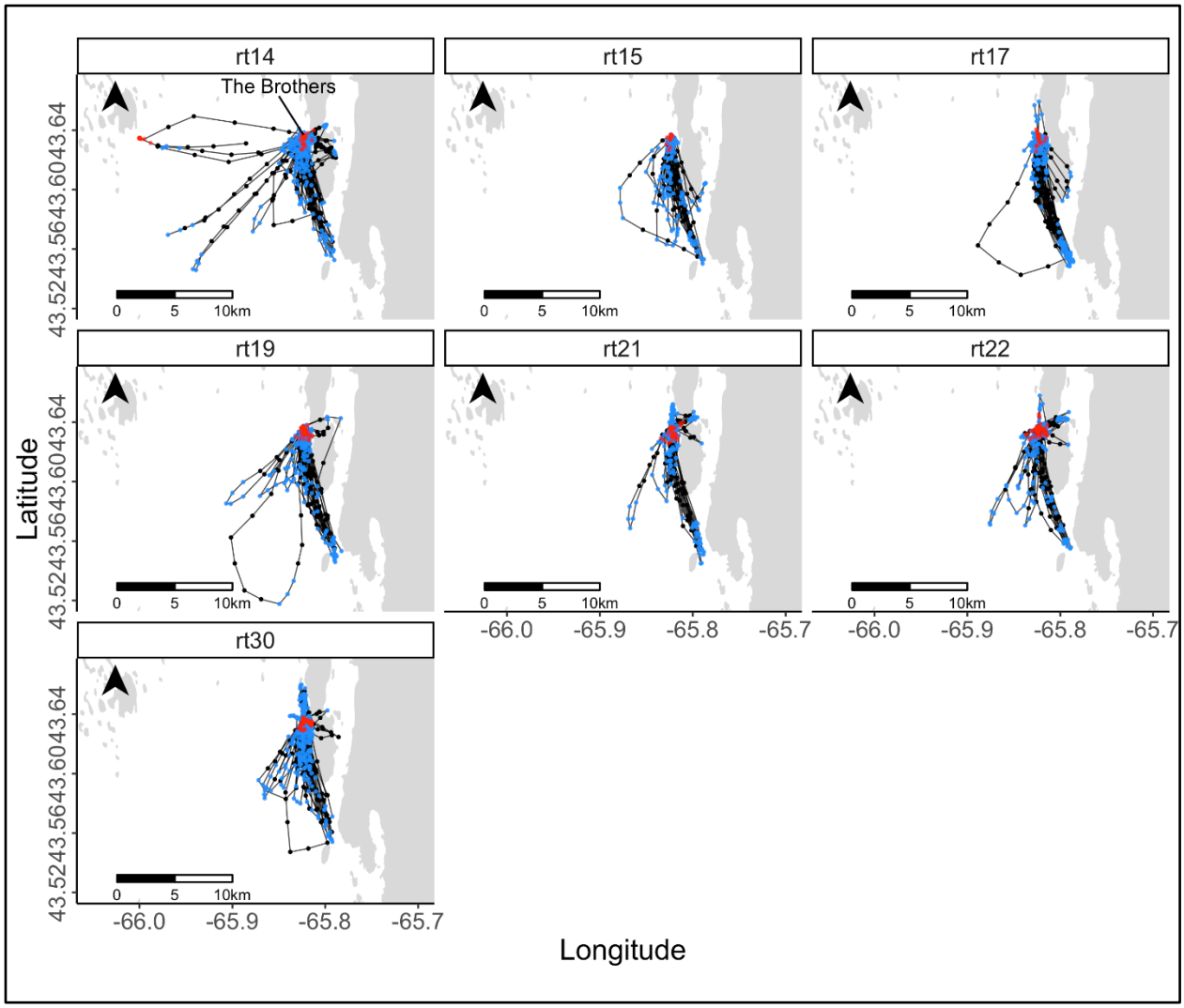

Figure S1 Foraging trip localisations after having been regularized to 5-min intervals (Benhamou & Riotte-Lambert 2012) to achieve the residence in space and time method (RST; Torres et al., 2017). Red dots identify resting locations, black dots travelling locations and blue dots area restricted search i.e., foraging locations. Seven roseate terns were tracked in 2016 from 16-23 June during the incubation period at North Brother Island, Nova Scotia, CA. RST radii selected for all individuals were 1.25 km except 1 km for rt30.

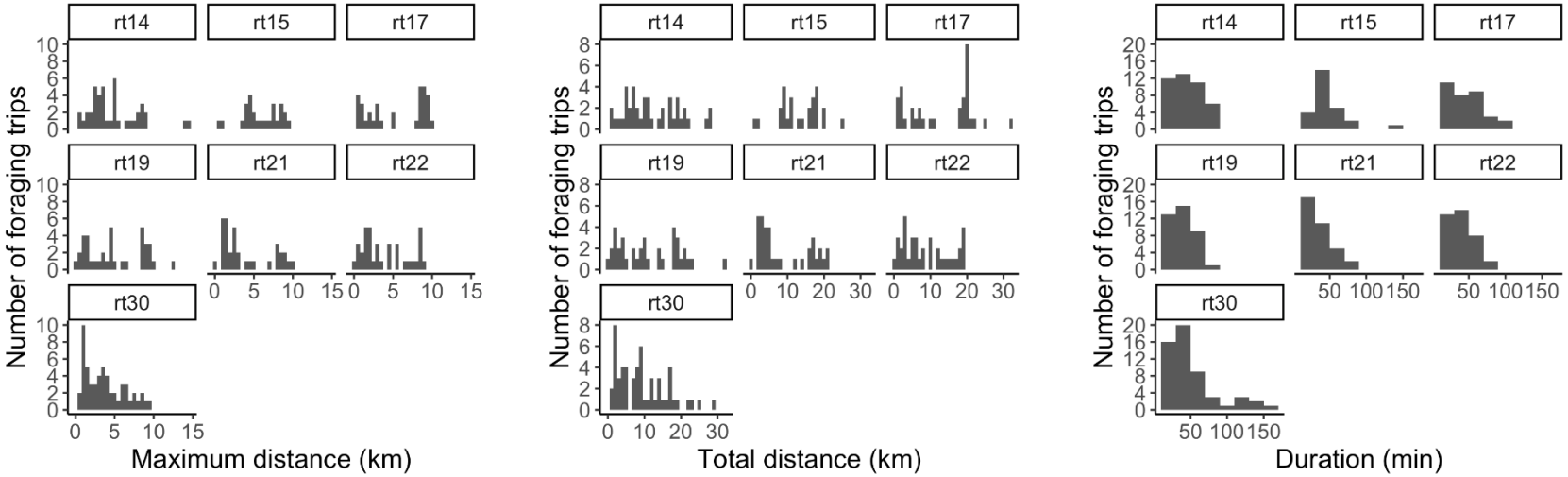

Figure S2 Number of foraging trips by individuals according to their maximum range (km; 0.5 km bins), their total distance (km; 1 km bins) and their duration (min; 20 min bins). All trips for all individuals tracked between 16 and 23 June 2016 are presented.

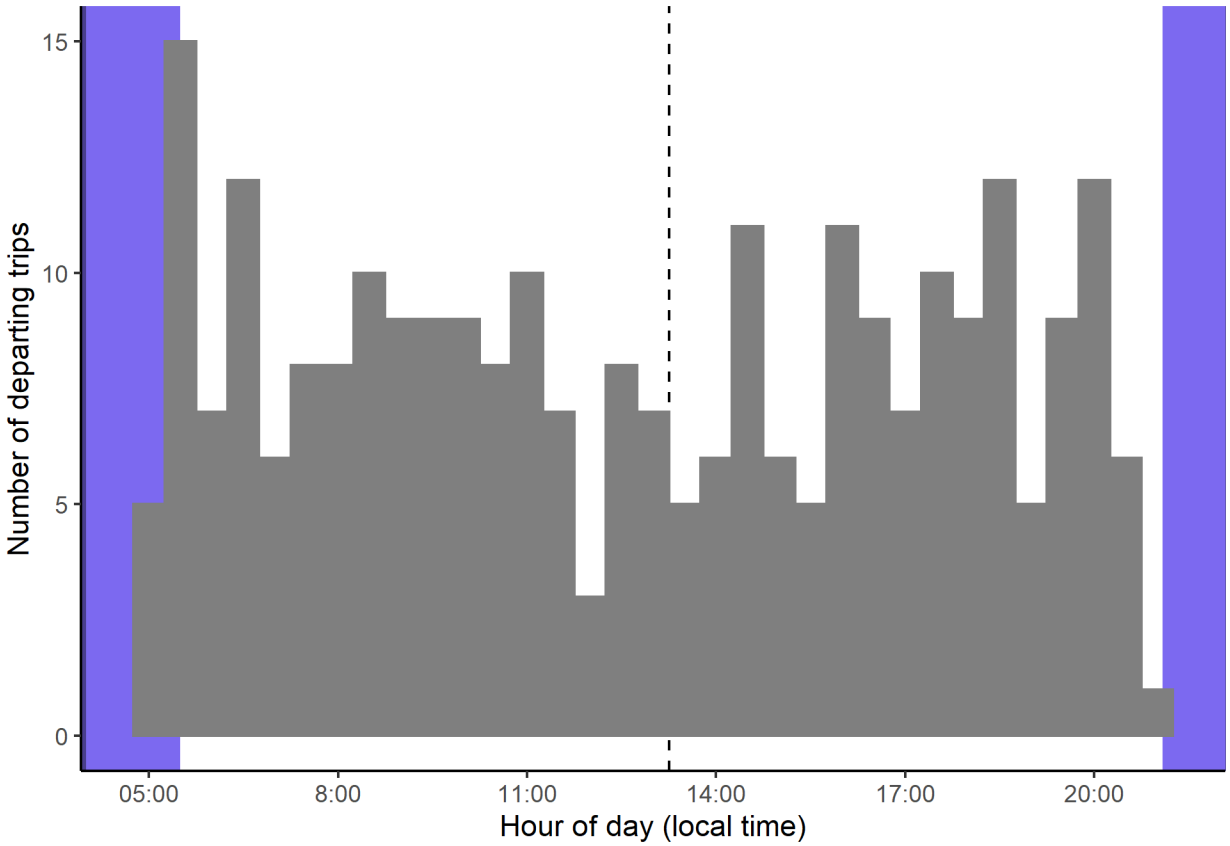

Figure S3 Number of departing foraging trips classified in half-hour bins. Trips of all individuals between 16 and 23 June 2016 are included with the exception of rt14 nightly trips. Purple shadow line represents the ~90 min interval between nautical dawn start/end and sunrise/sunset, dashed line presents solar noon at 13:15 local time for the tracking period. The off-duty cycle of the device was set between 23:00 and 05:00 local time. The latest a bird departed the colony was 20:56, while the earliest was 05:11.

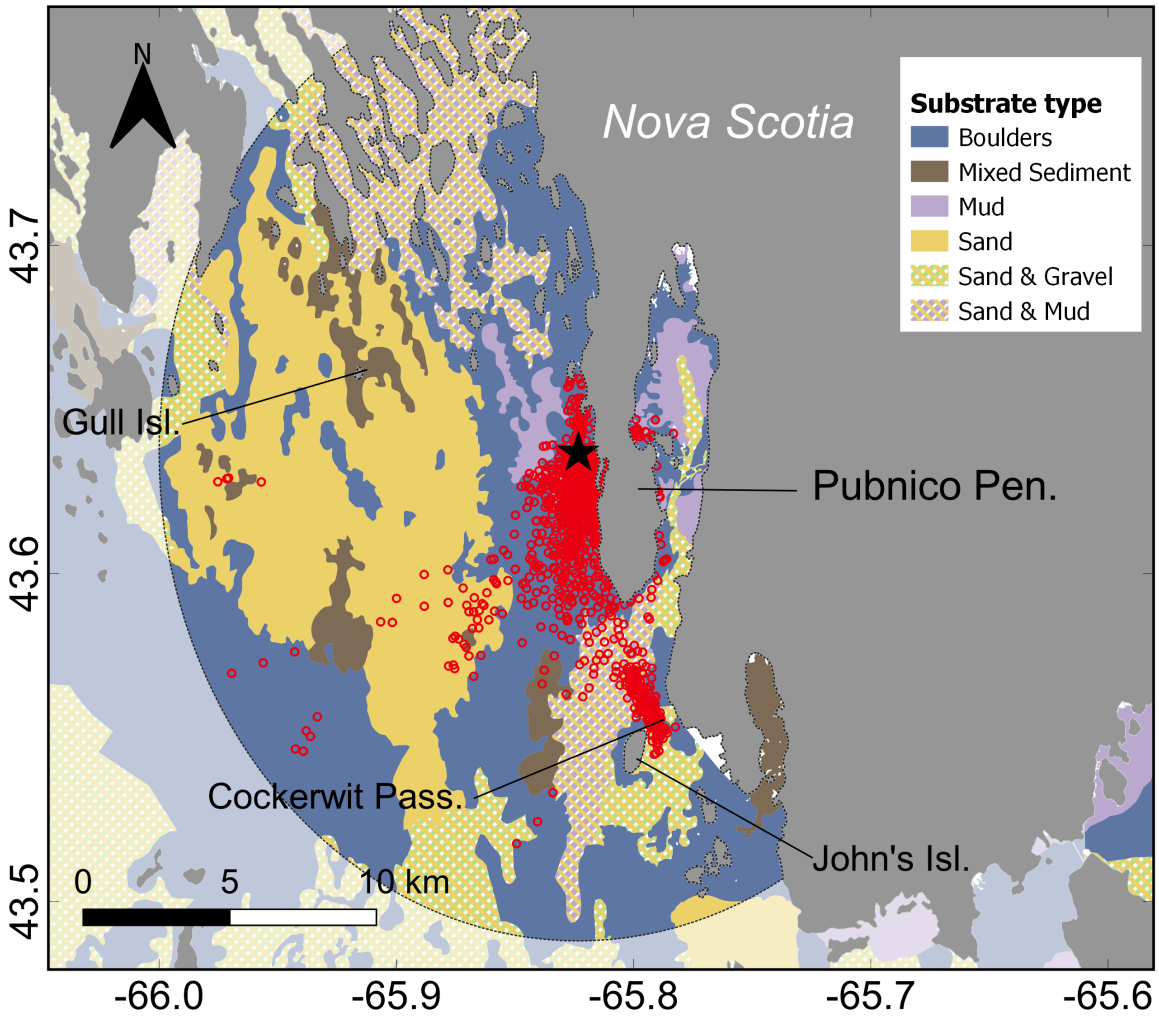

Figure S4. Foraging locations identified using the residence in space and time method (RST; Torres et al. 2017; Fig S1) lay over the different subtidal substrate types (Greenlaw et al. 2013) found within the study area. Seven roseate terns were tracked in 2016 from 16-23 June during the incubation period at North Brother Island, Nova Scotia, CA. Projection used is WGS84 Pseudo-Mercator

References

Benhamou S, Riotte-Lambert L (2012) Beyond the utilization distribution: identifying home range areas that are intensively exploited or repeatedly visited. Ecol Modell 227:112−116

Greenlaw ME, Gromack AG, Basquill SP, MacKinnon DS and others (2013) A physiographic coastline classification of the Scotian Shelf bioregion and environs: the Nova Scotia coastline and the New Brunswick Fundy shore. Can Sci Advis Secr Res Doc 2012/051

Torres LG, Orben RA, Tolkova I, Thompson DR (2017) Classification of animal movement behavior through residence in space and time. PLOS ONE 12: e0168513