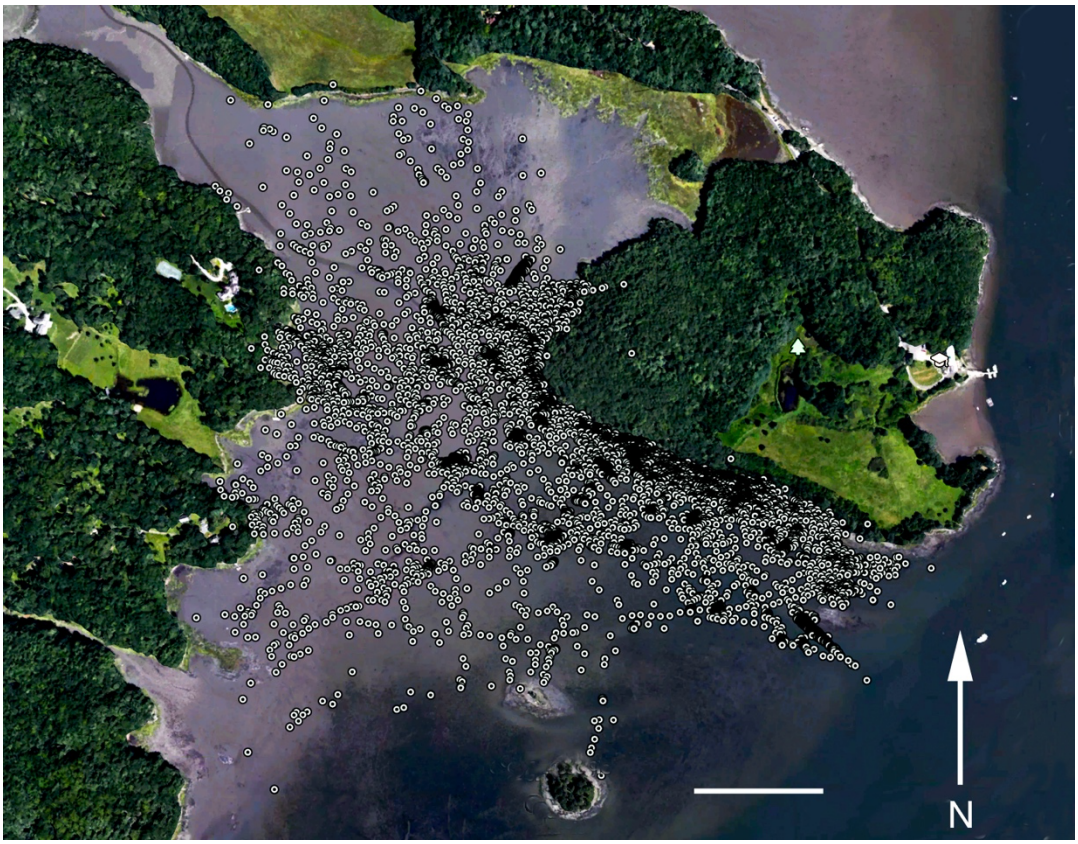

Figure S1. Every positional fix (white circles) acquired by the 12 VR2W receivers in the VPS array, from the 20 horseshoe crabs that were released at the location shown in Fig. 1. This illustrates the area covered by the VPS array.

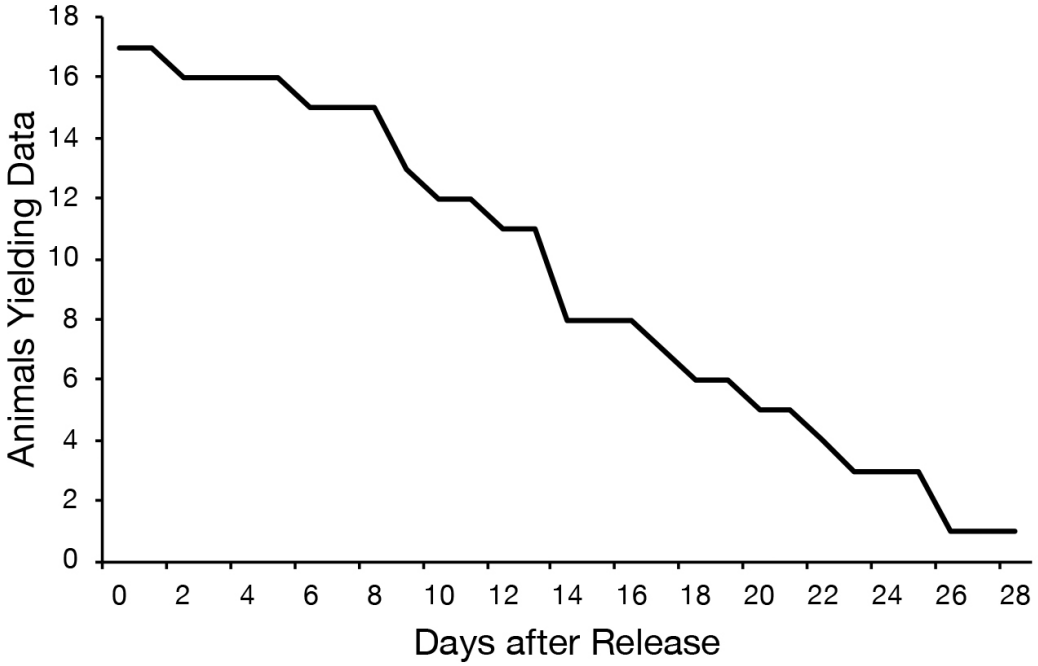

Figure S2. The number of tagged horseshoe crabs present in the VPS array each day during the 28-day study.

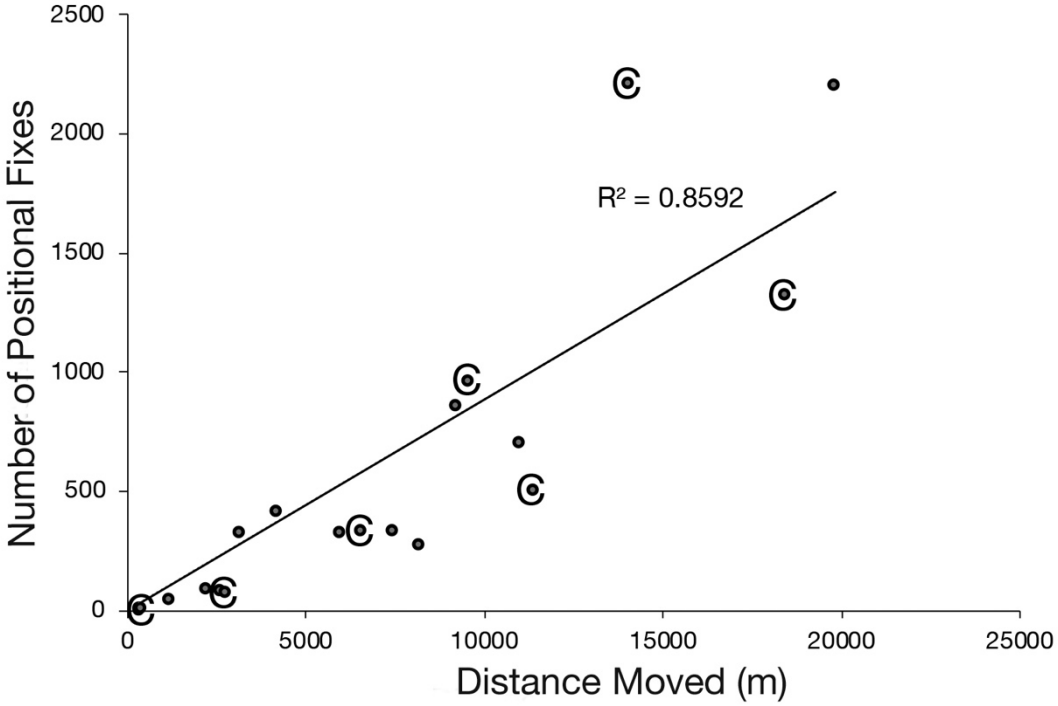

Figure S3. The relationship between the number of times accurate GPS coordinates were recorded with the VPS system and the total distance twenty horseshoe crabs (10 control, 10 bled) moved during the course of the study. The data points for the 10 control females have the letter "C" around them. Near the origin some data points are very close together so, for example, the C closest to the origin encircles 3 control data points, and the C to the right of it encircles 2 control points.

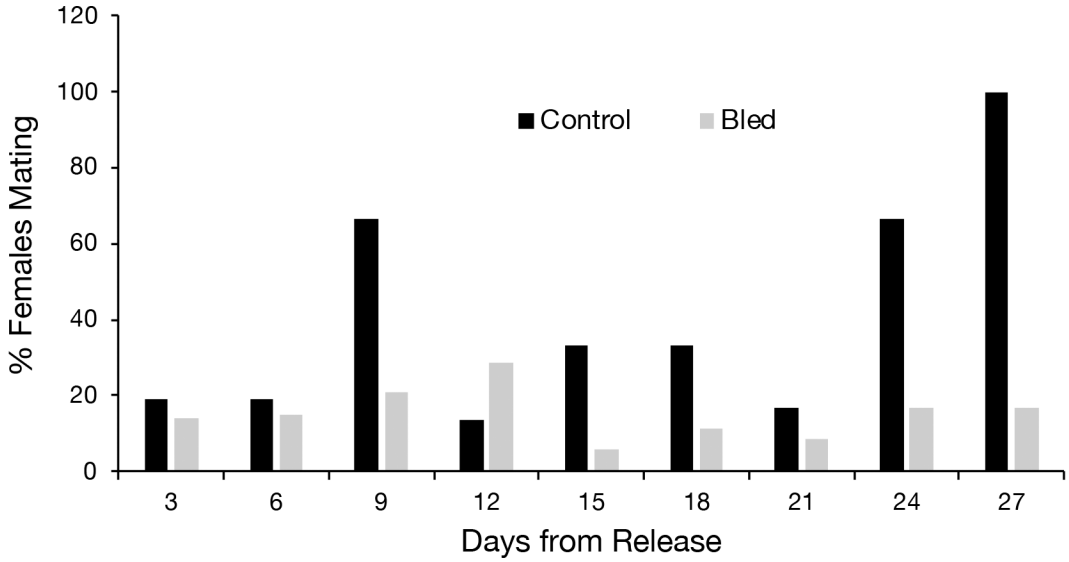

Figure S4. The percent of bled and control females that were present within the VPS array that expressed apparent mating events during each three-day time-period after they were released, on May 22nd, 5 days after the full moon. The percent of females mating each day was calculated, and then the mean of these values were calculated for each three day period.