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Rhode Island Bee Survey Update

GEOFF STILWELL

Objectives and Methods

To survey honey bee populations in RI

- ❑ Monitor the health of the population
- ❑ Track the presence of small hive beetles
- ❑ Develop an online database



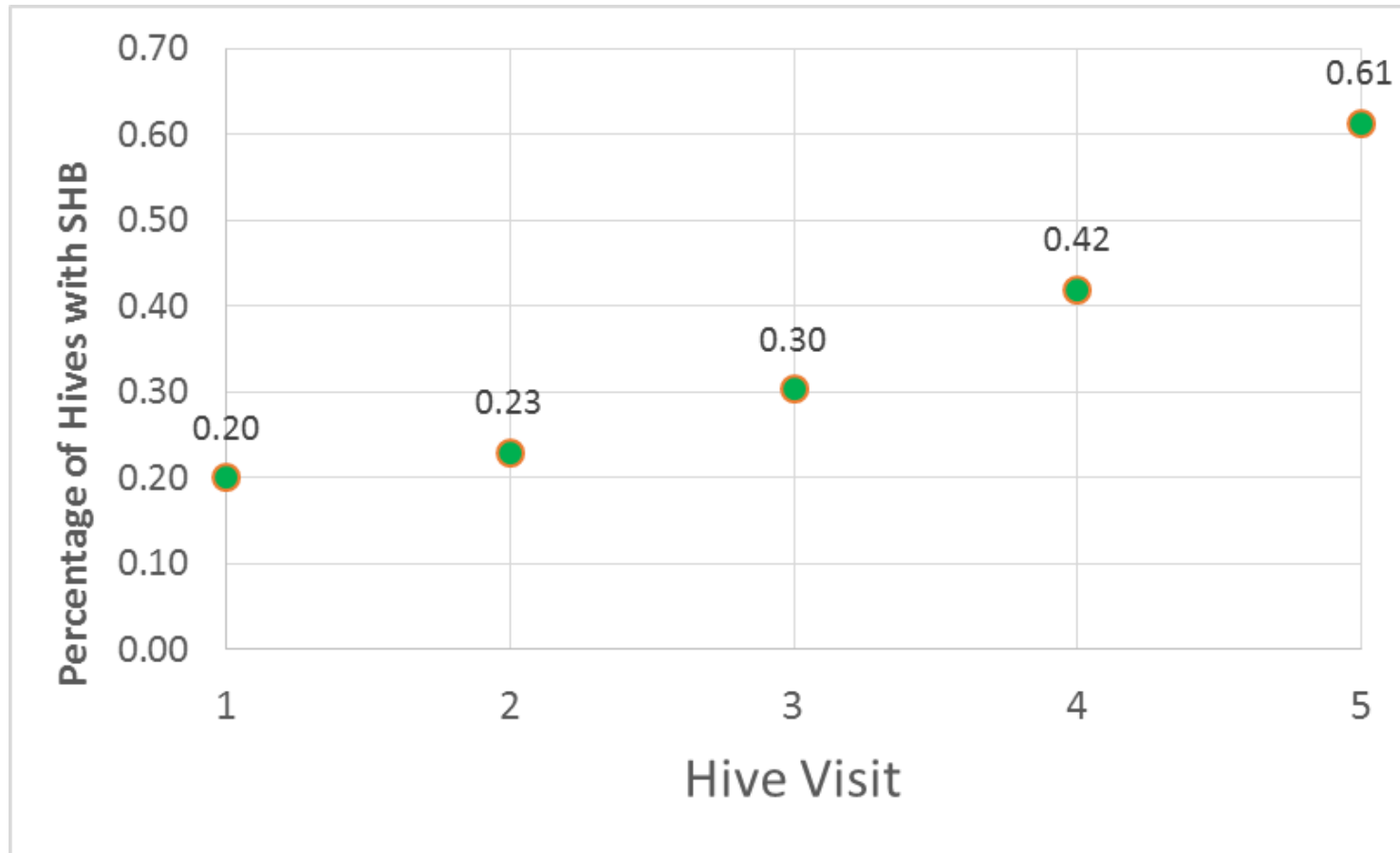
Surveys before and after the growing season

Collecting hive debris through screened bottom-board

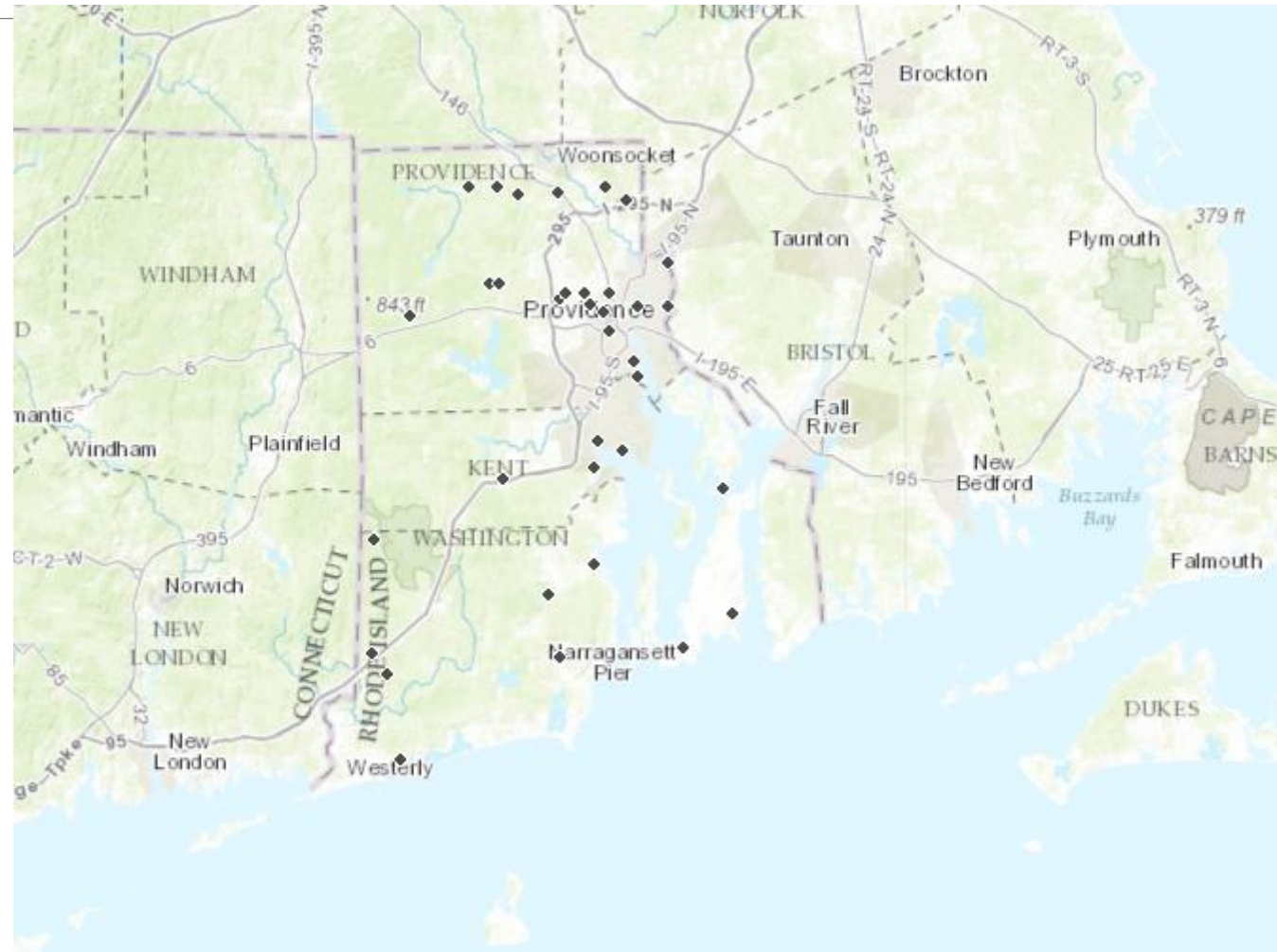
- ❑ Collect oil sample every 2 weeks
- ❑ Pass through metal sieves
- ❑ Count SHB and Varroa mites



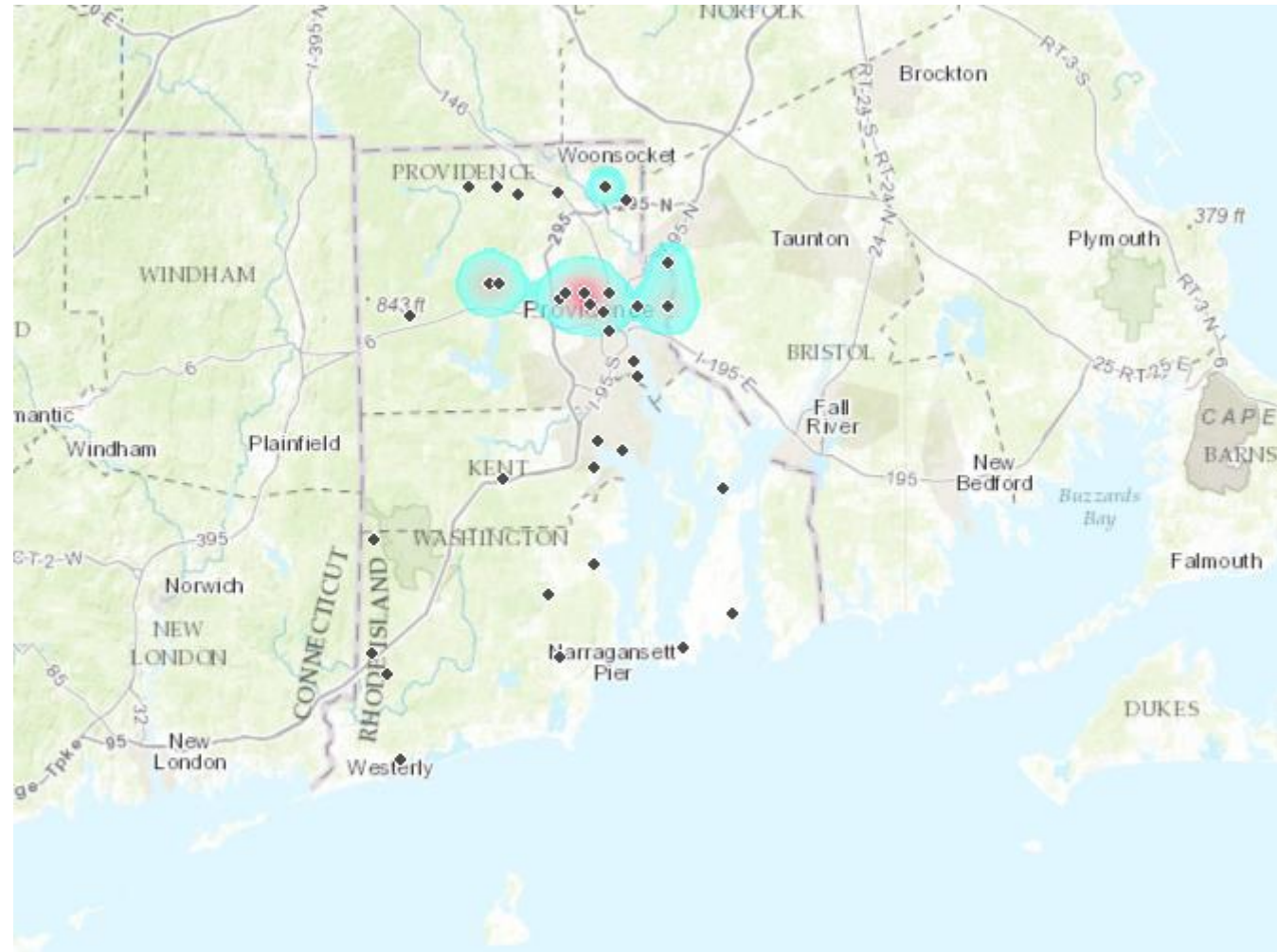
Small Hives Beetles are Widespread in RI by August



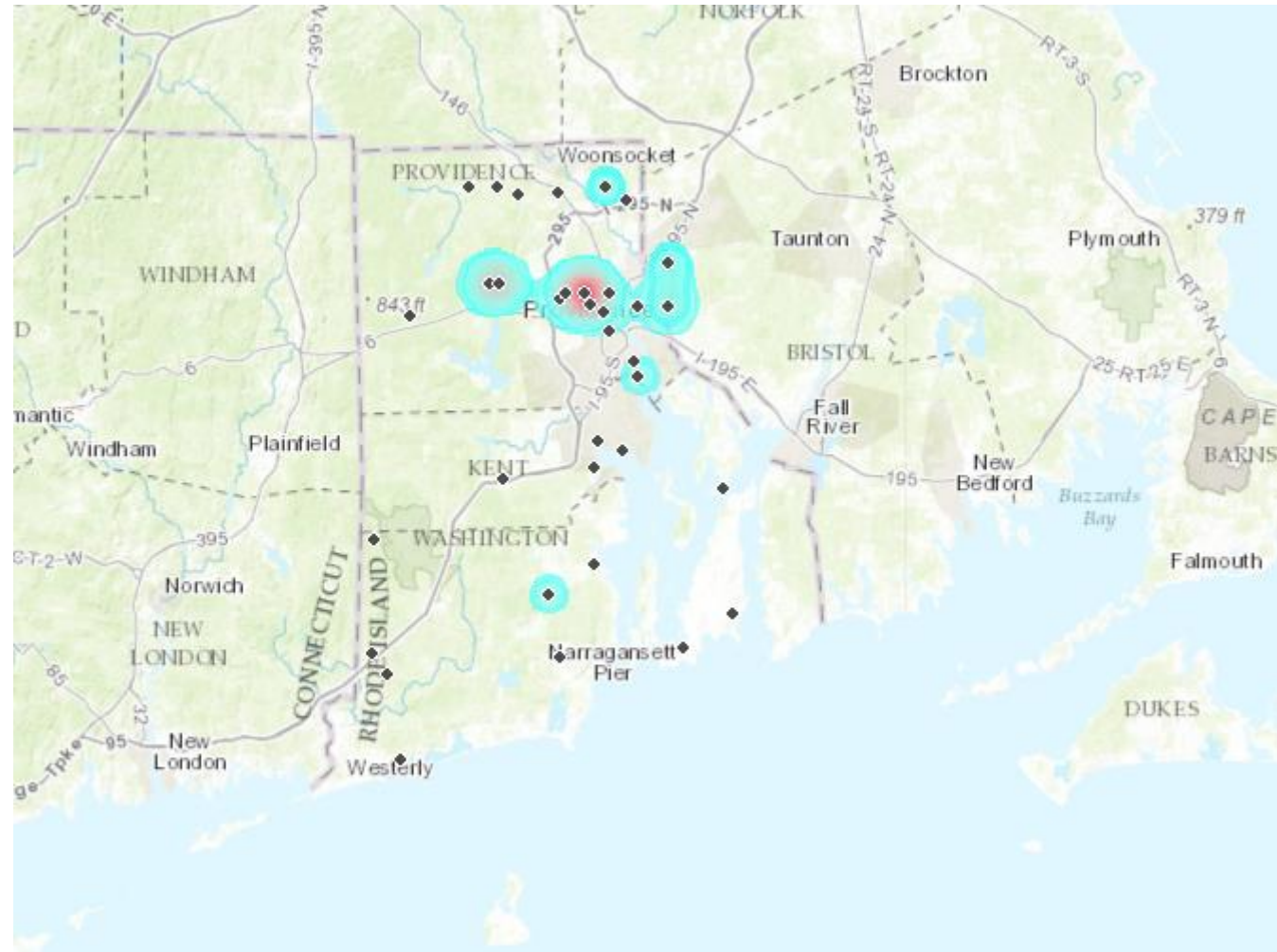
Early-June



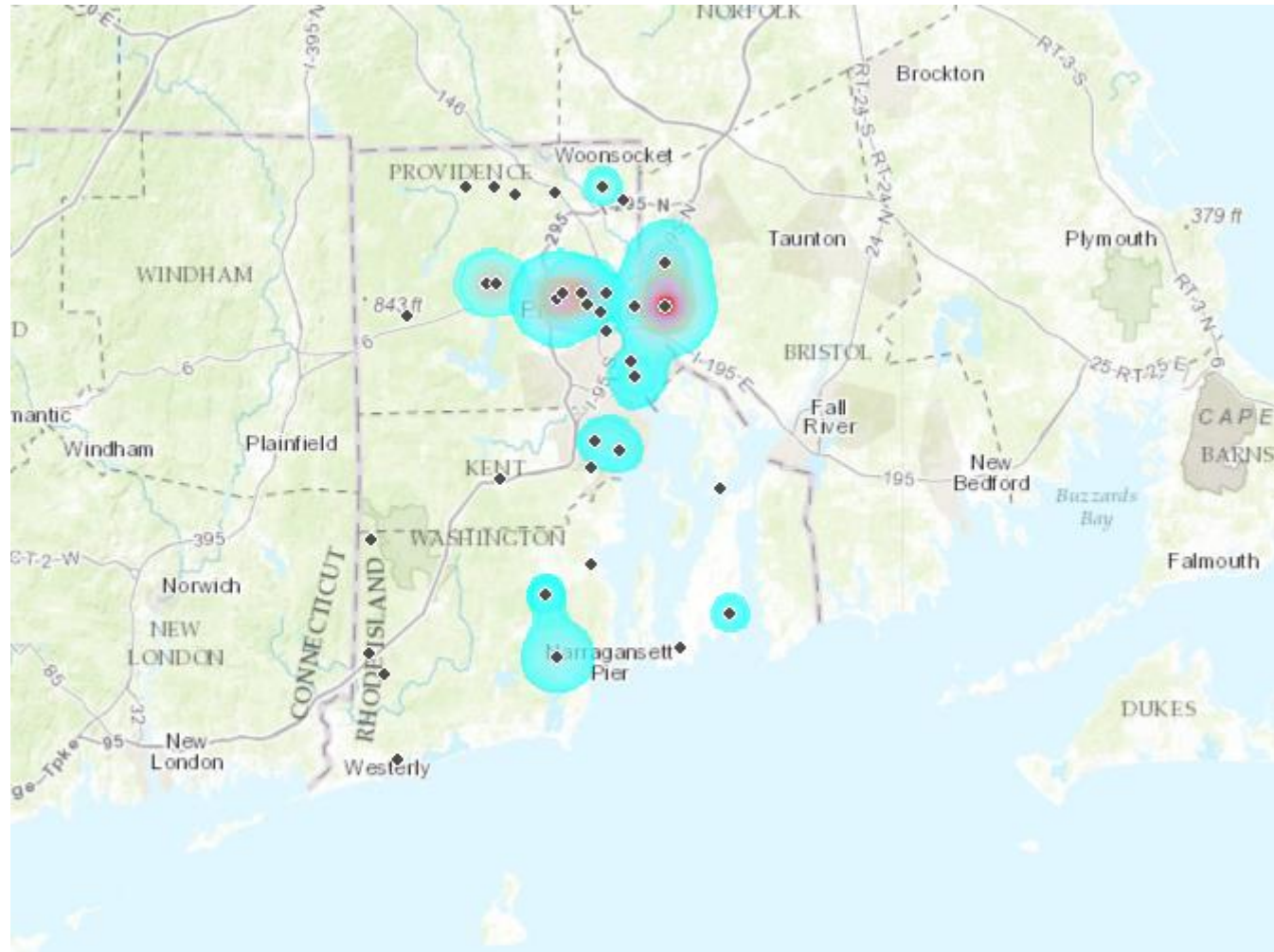
Late-June



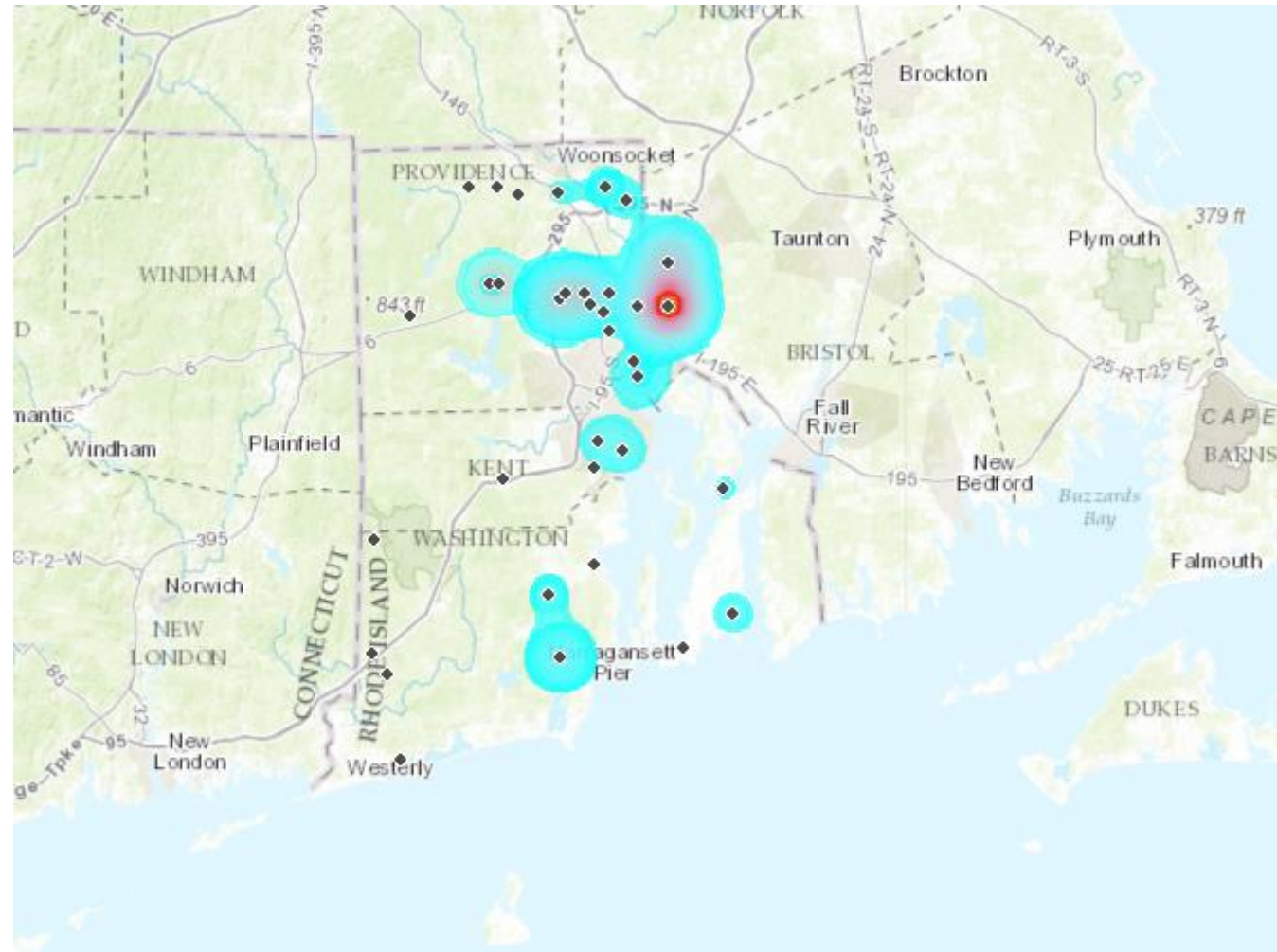
Early-July



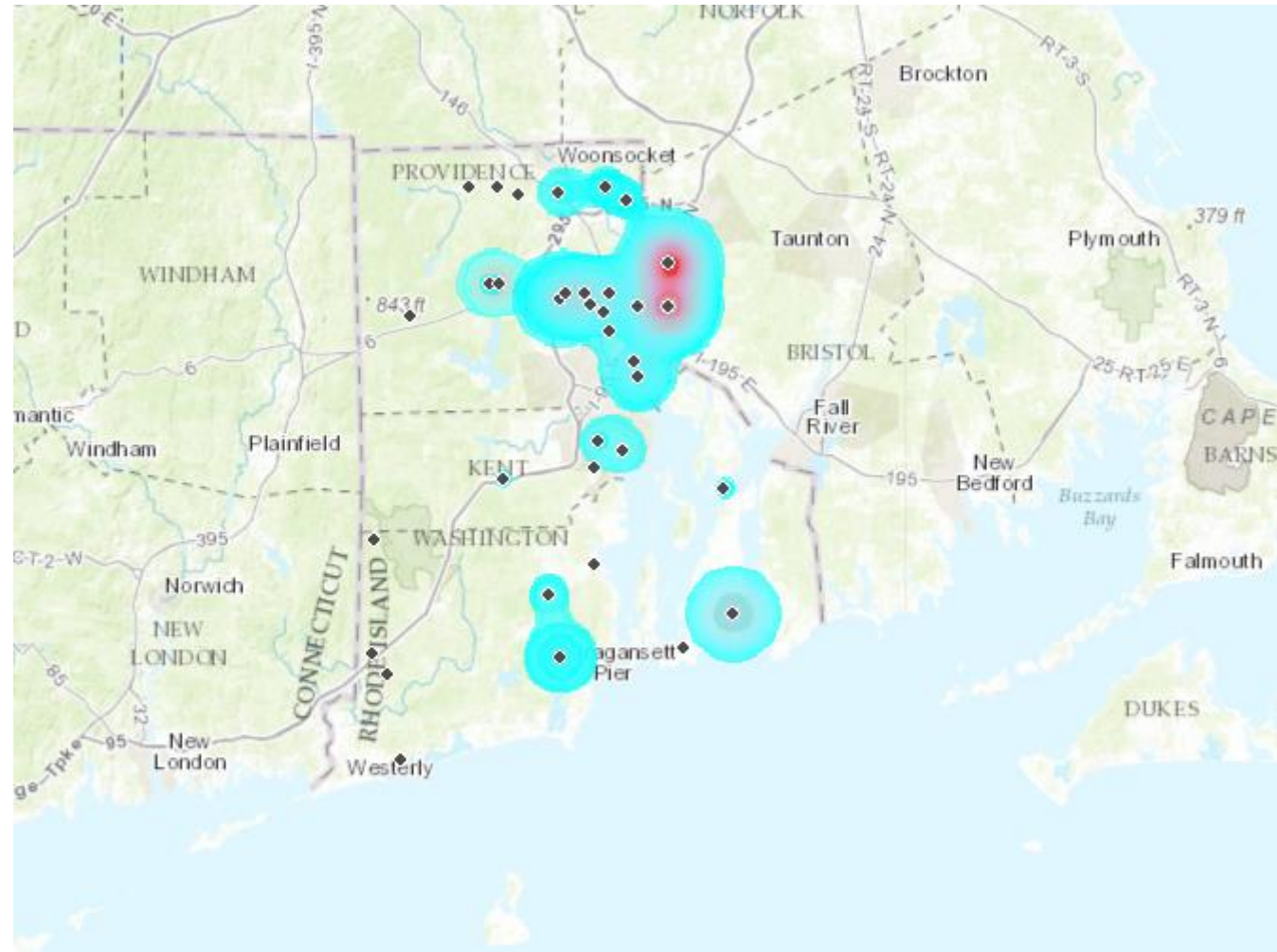
Late-July



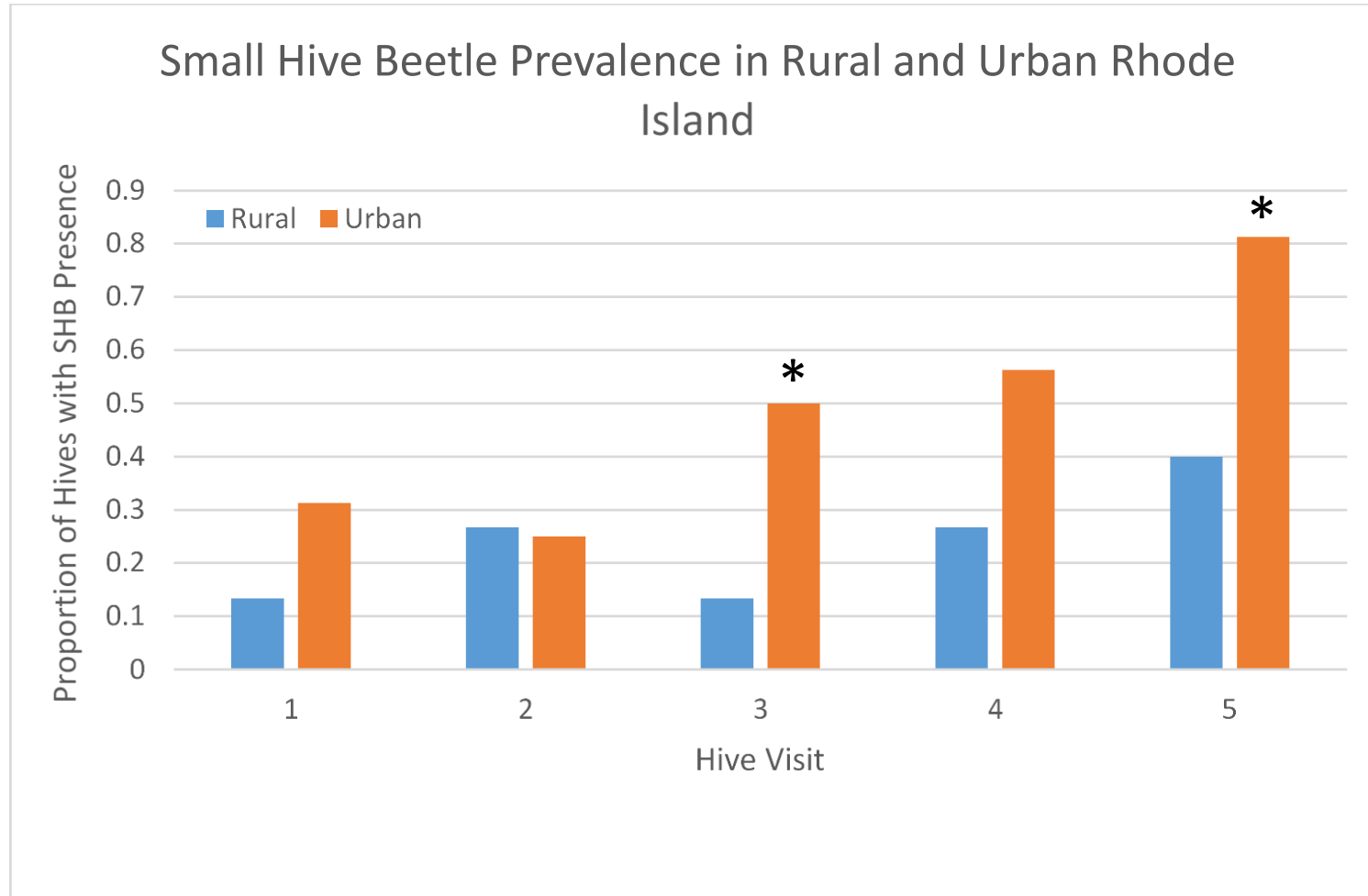
Early-Aug



Mid-Aug



Small Hive Beetles were more concentrated in urban locations



Both NA1 and NA2 haplotypes are present in RI and found in the same hive

Beetle ID	Informative Polymorphic Loci						Haplotype
	228 bp	276 bp	597 bp	606 bp	684 bp	768 bp	
RIC-11/2014-2	A	T	C	C	T	A	NA2
RIC-11/2014-4	G	A	T	T	C	G	NA1
RIC-11/2014-5	A	T	C	C	T	A	NA2
1-6/15-1	A	T	C	C	T	A	NA2
3-6/15-1	A	T	C	C	T	A	NA2
3-6/15-2	A	T	C	C	T	A	NA2
3-6/15-4	A	T	C	C	T	A	NA2
25-7/7-2	A	T	C	C	T	A	NA2
31-6/23-2	G	A	T	T	N	G	NA1*

