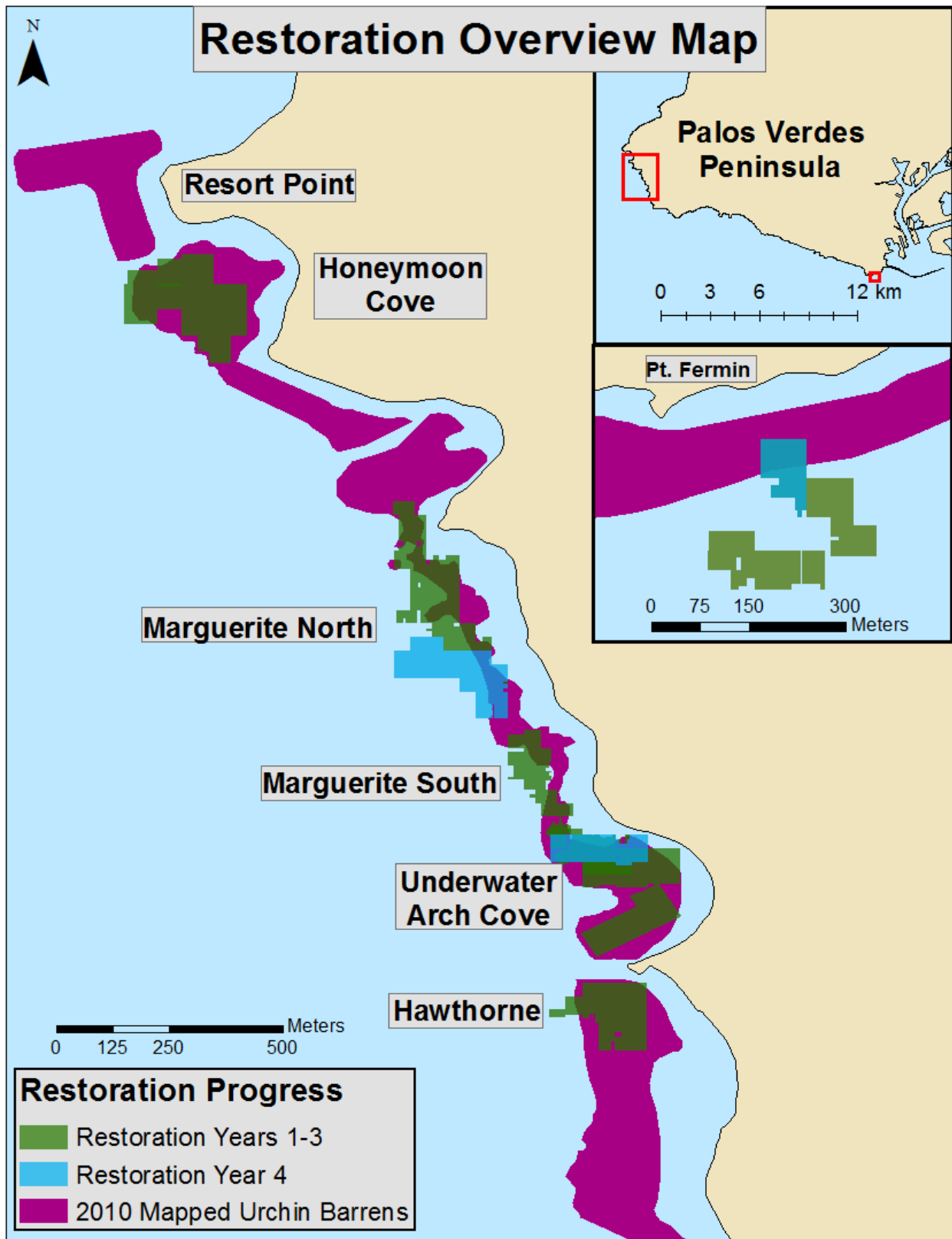
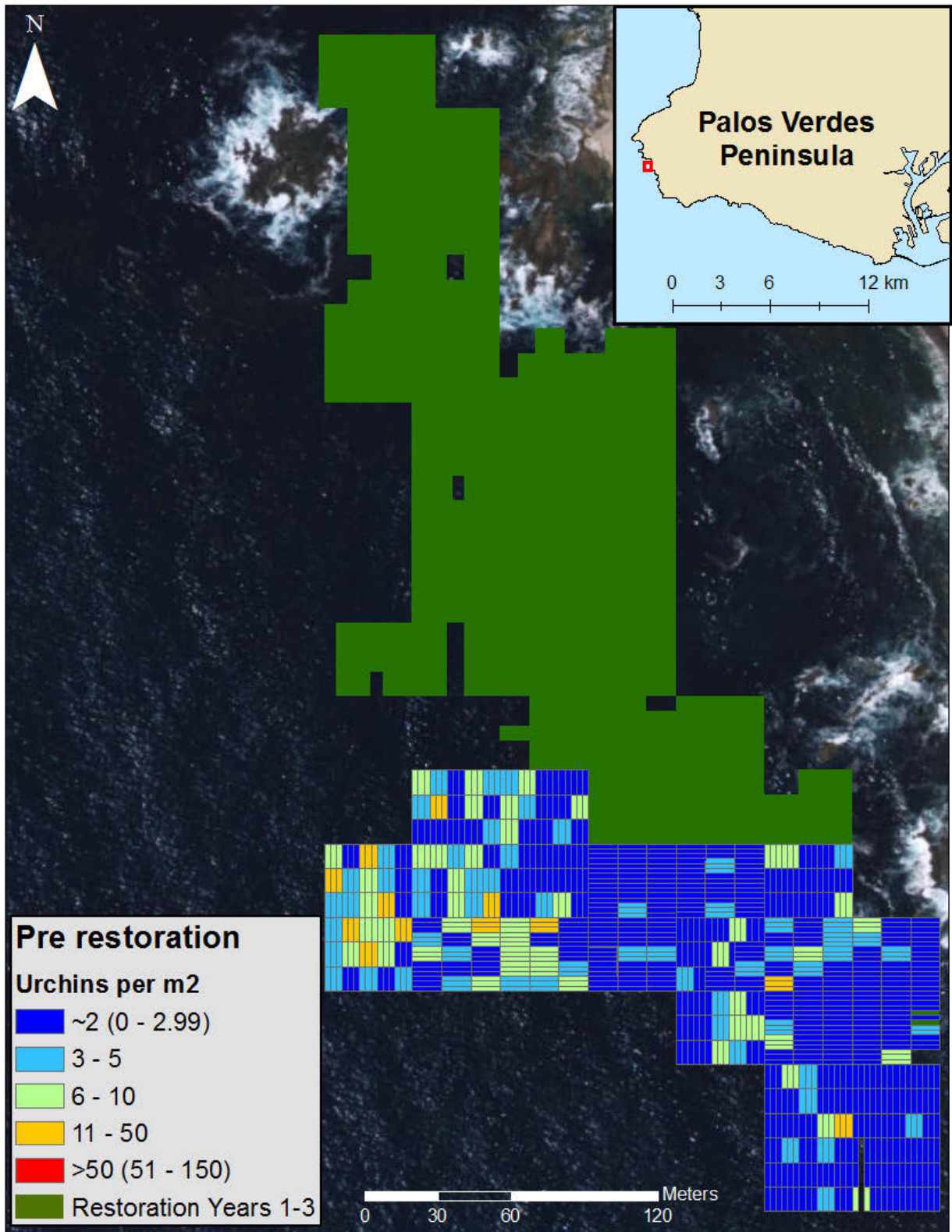


Appendix A: Palos Verdes Kelp restoration Project Map Images

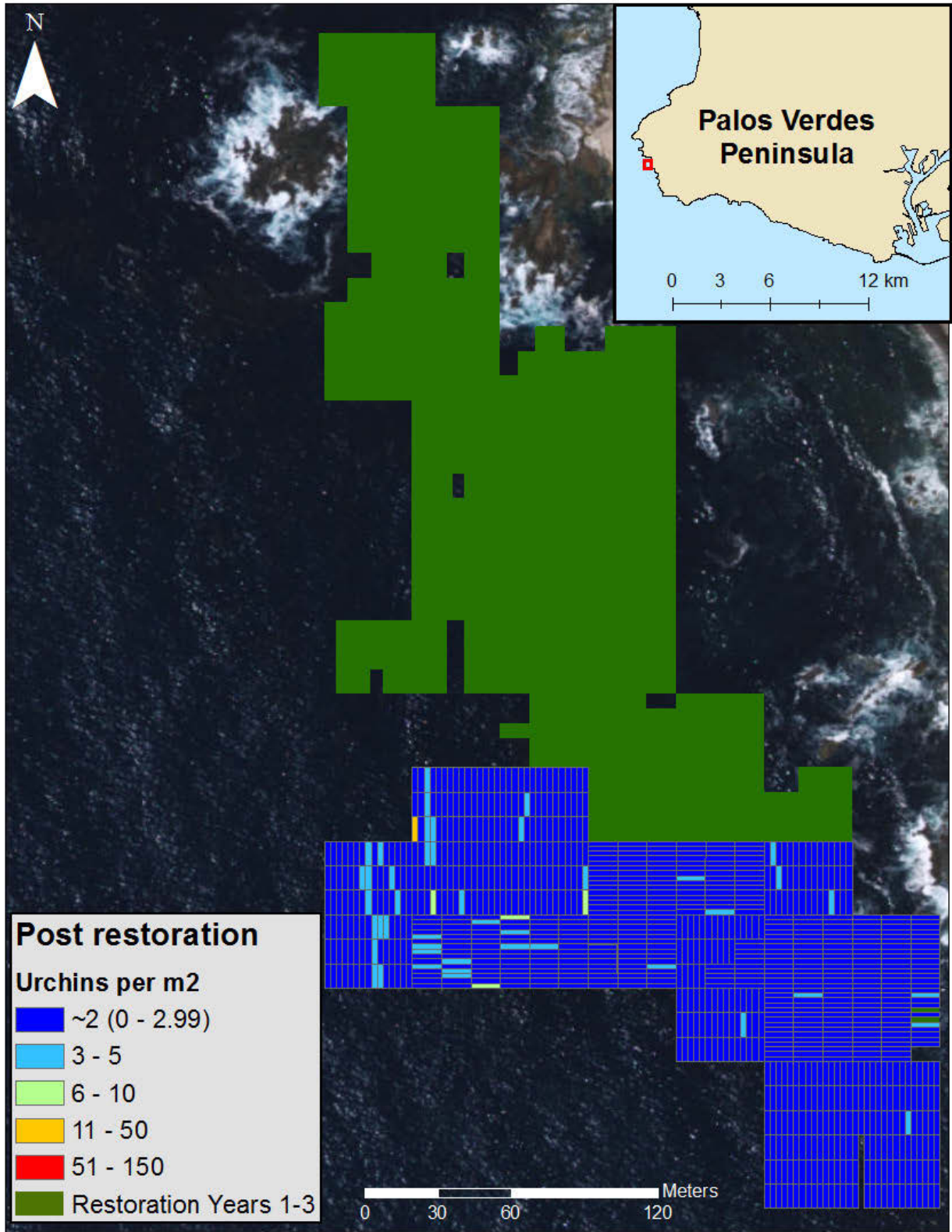


Map A1. Overview of the project area along the Palos Verdes Peninsula showing the urchin barren extent (purple) mapped in 2010. The locations of restoration areas completed in years 1 through 3 are in green, areas restored in year 4 are blue.

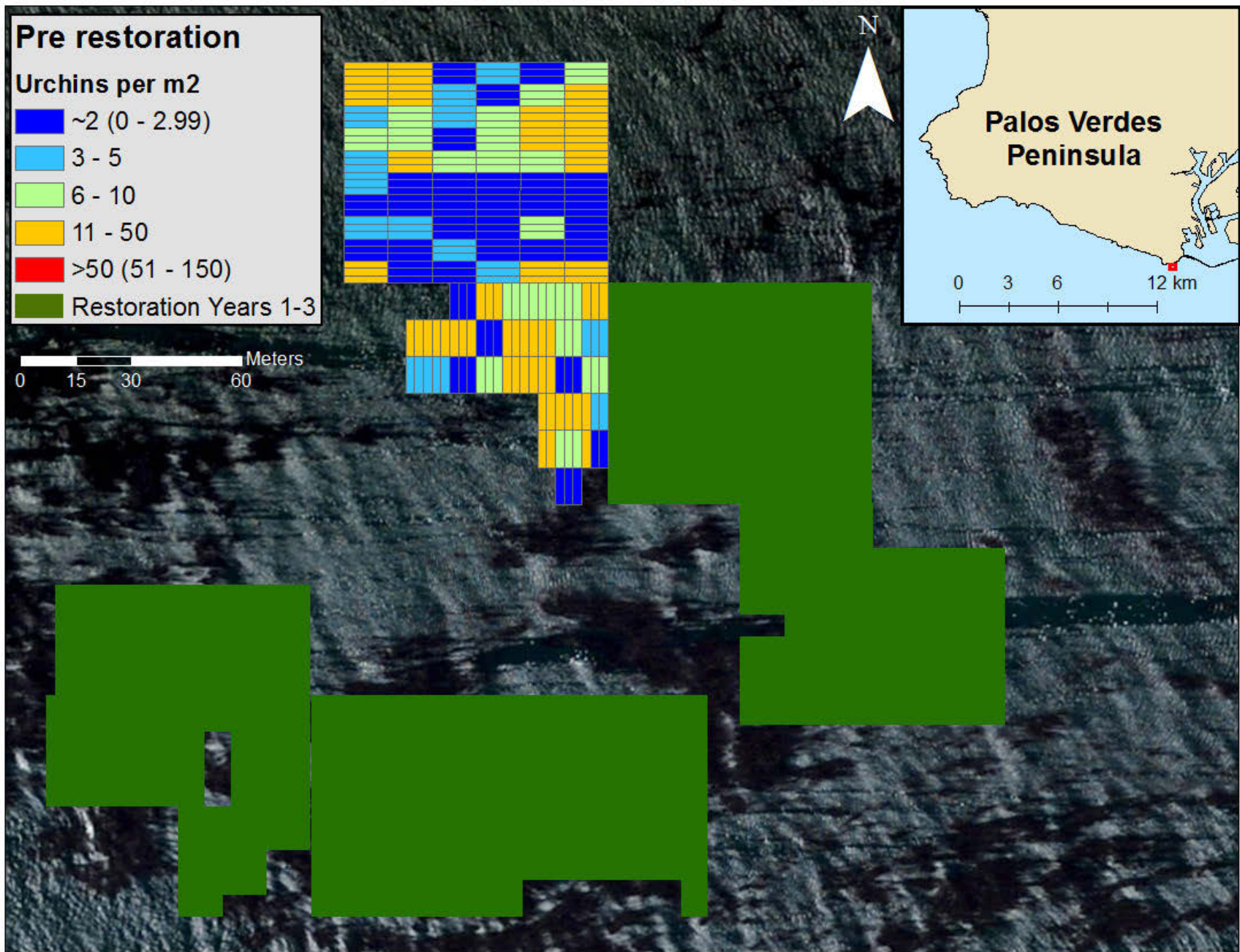
Pre and Post Restoration Urchin Density Maps –July 1, 2013 through June 30, 2017



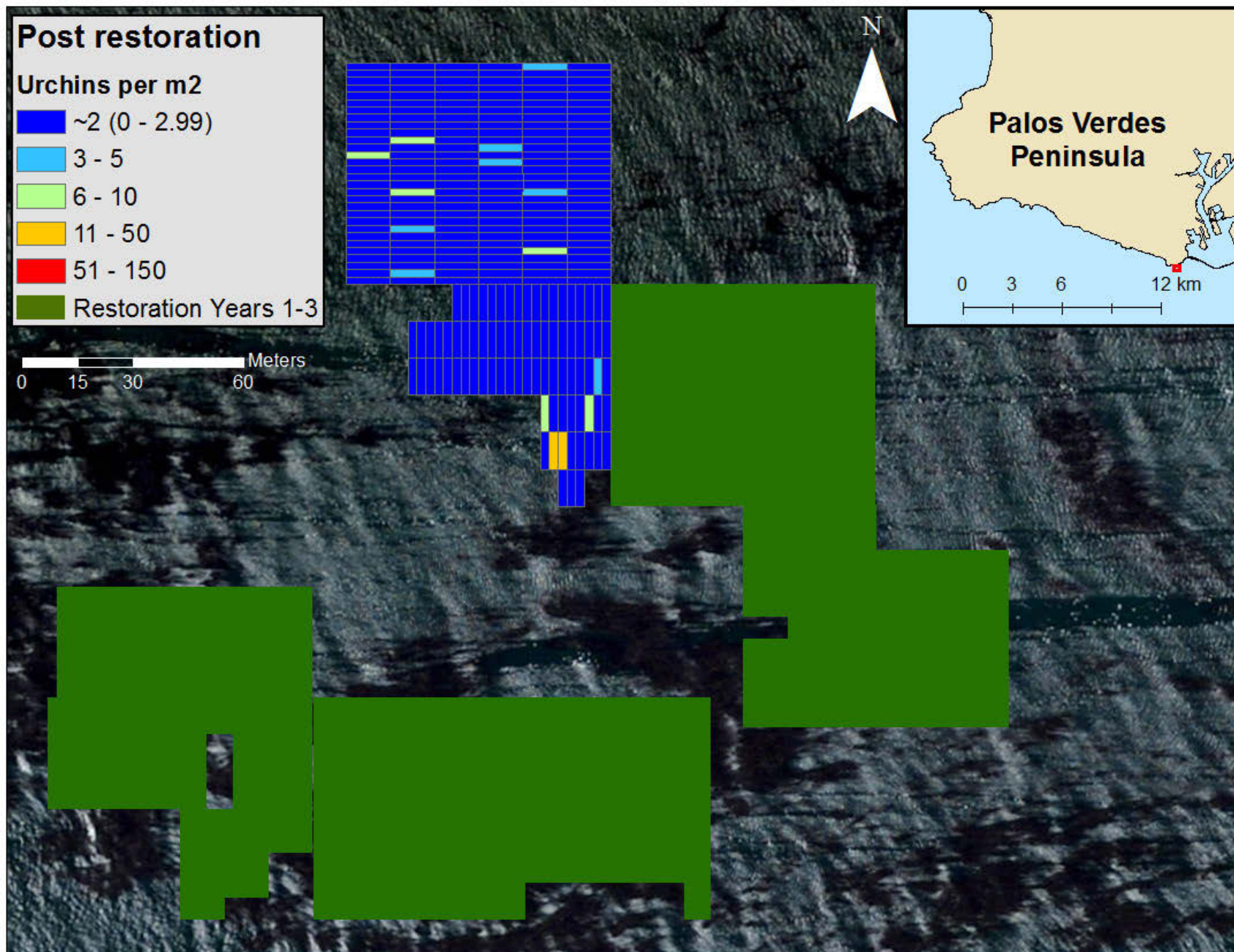
Map A2. Density of *S. purpuratus* (individuals per square meter) pre-restoration in Marguerite (north), Palos Verdes, California.



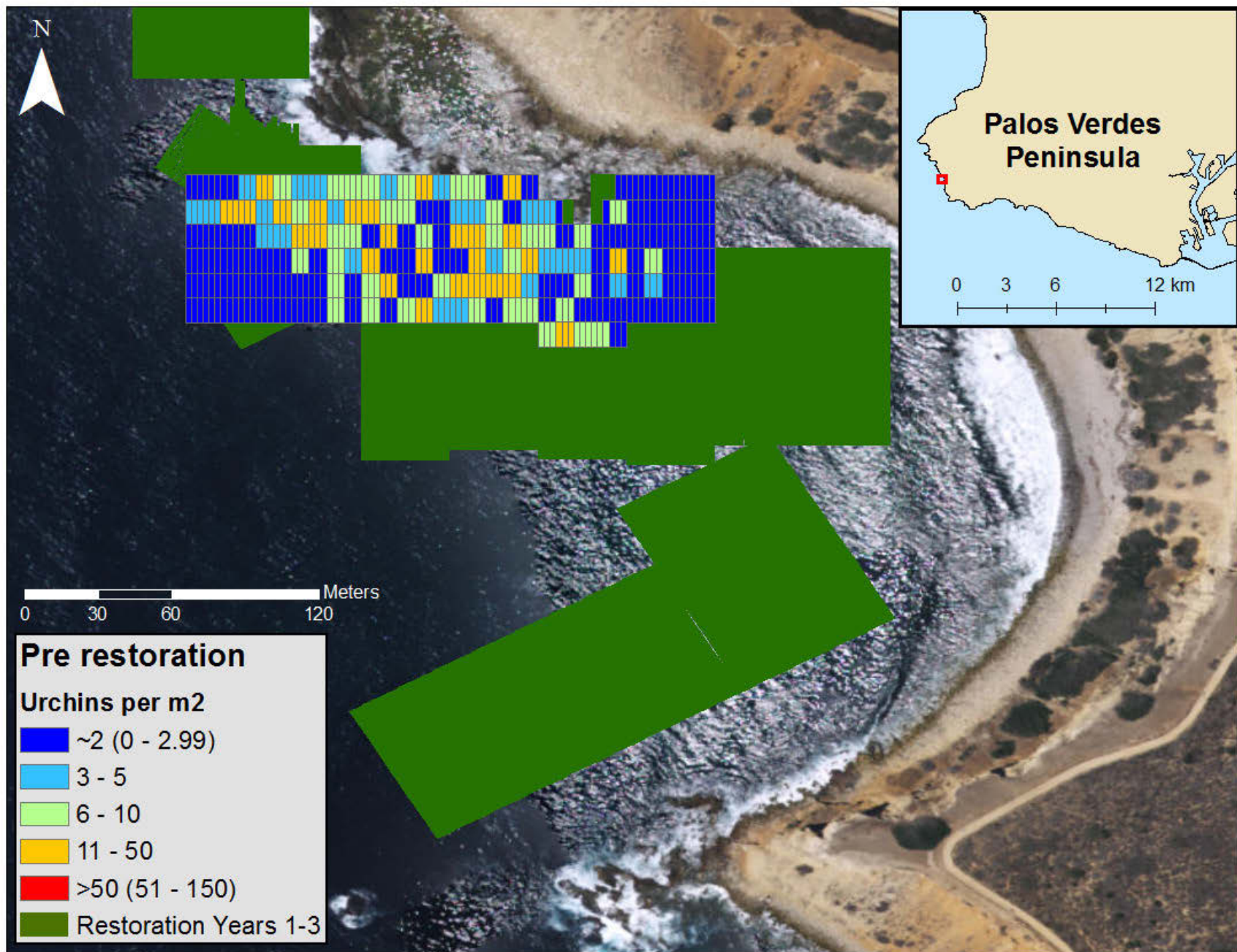
Map A3. Density of *S. purpuratus* (individuals per square meter) post-restoration in Marguerite (north), Palos Verdes, California.



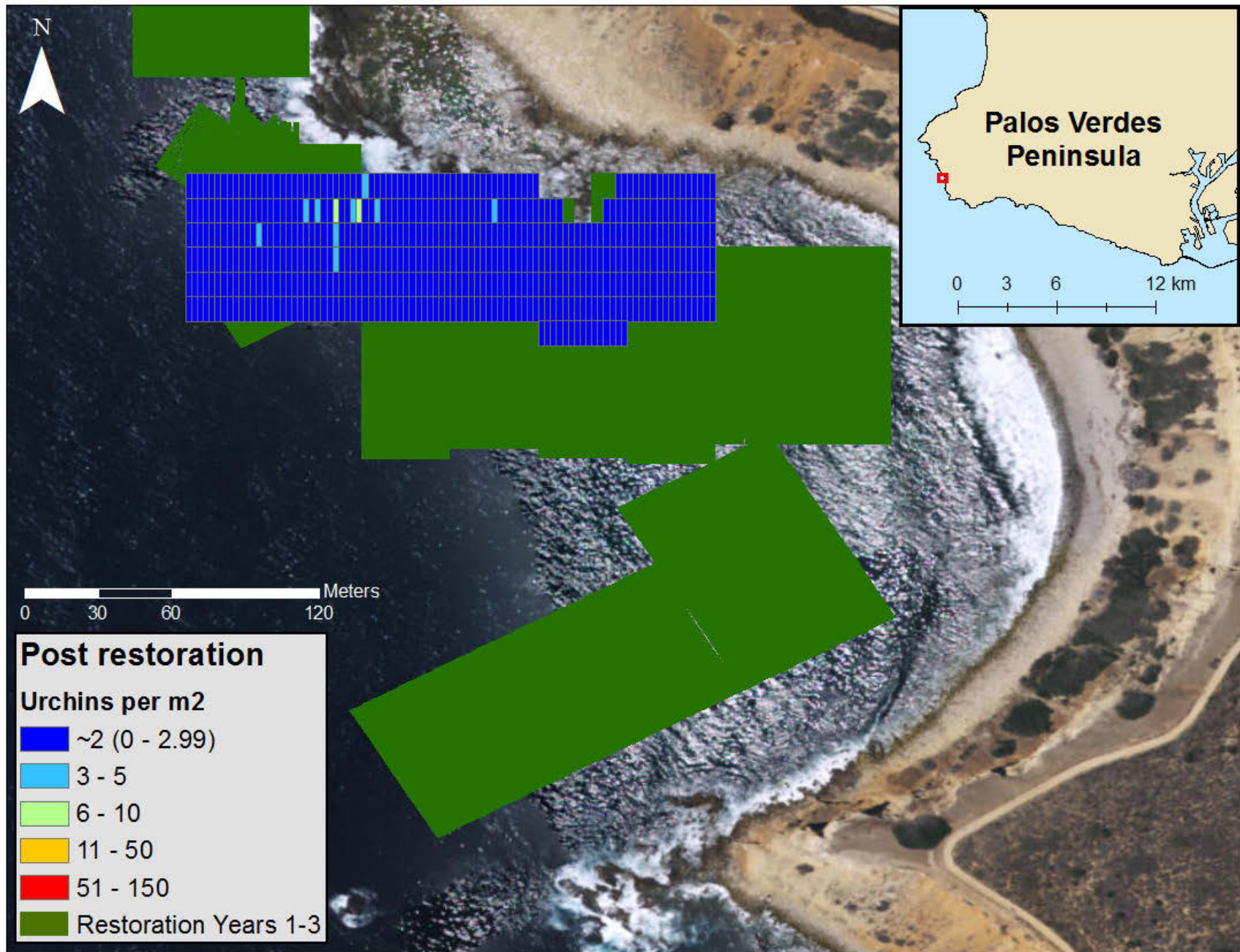
Map A4. Density of *S. purpuratus* (individuals per square meter) pre-restoration in Point Fermin, Palos Verdes, California.



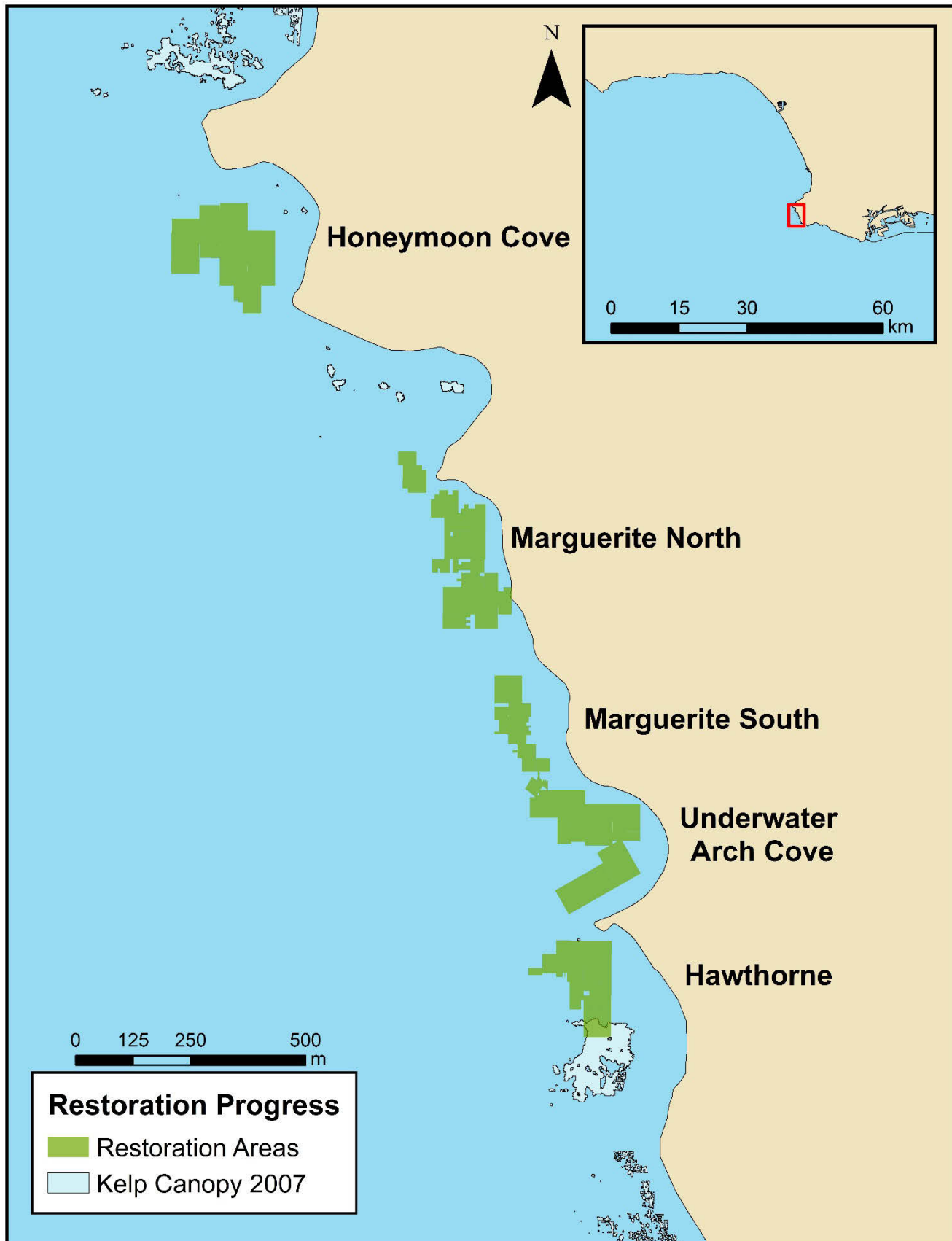
Map A5. Density of *S. purpuratus* (individuals per square meter) pre-restoration in Point Fermin, Palos Verdes, California.



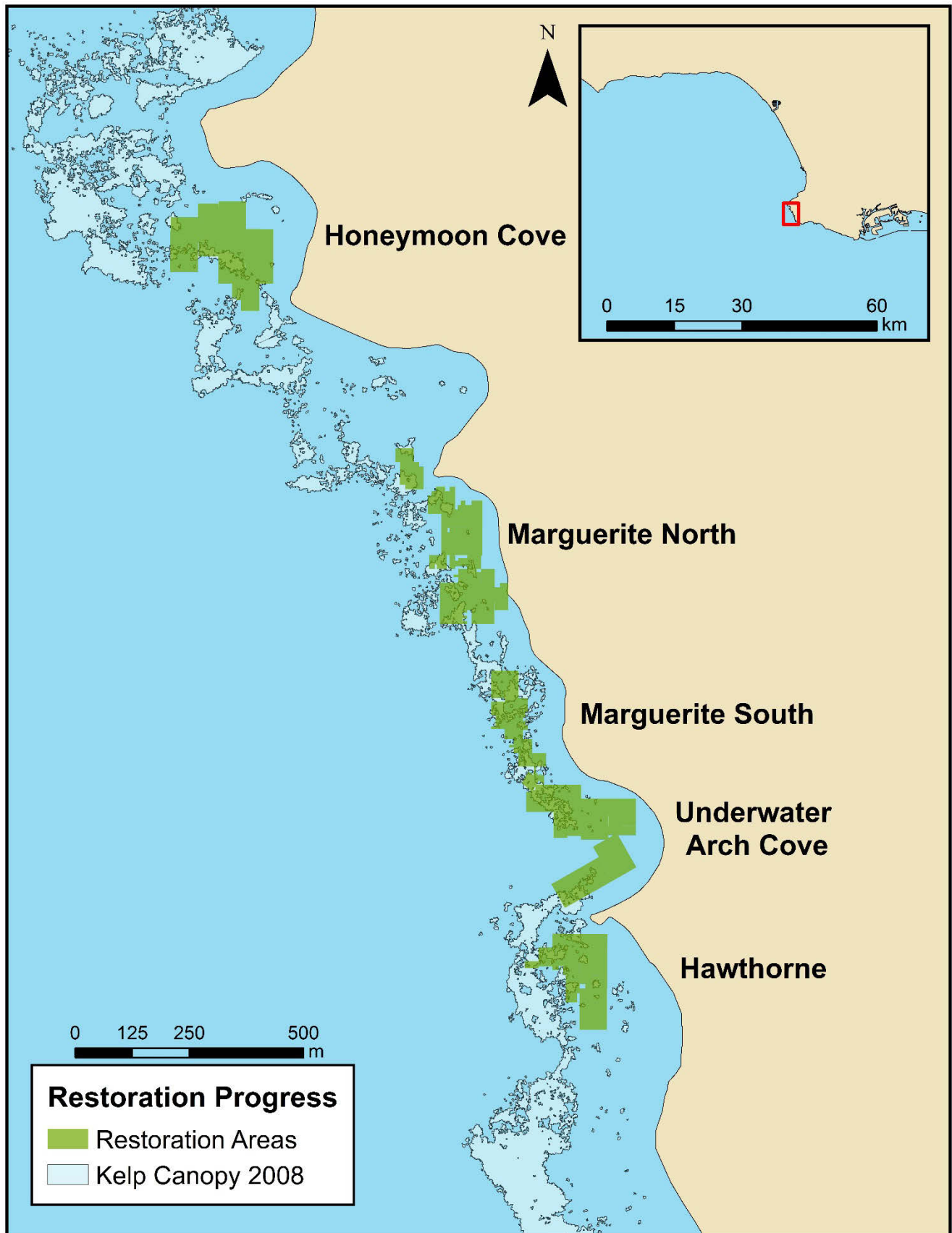
Map A6. Density of *S. purpuratus* (individuals per square meter) in Underwater Arch, Palos Verdes, California. Excess urchins were observed in 2.64 acres of the site area previously restored in 2013.



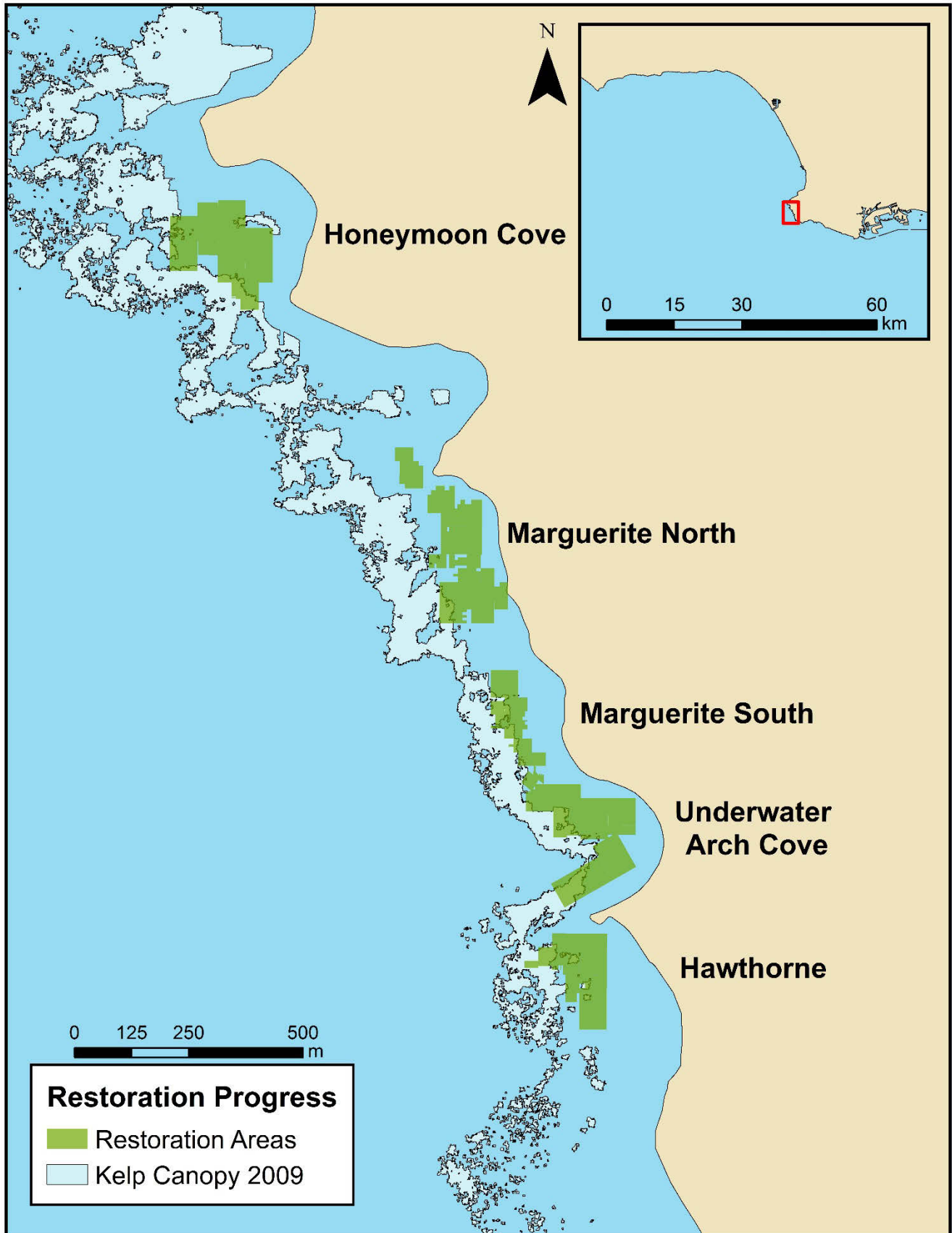
Map A7. Density of *S. purpuratus* (individuals per square meter) in Underwater Arch, Palos Verdes, California. Excess urchins were observed in 2.64 acres of the site area previously restored in 2013. Restoration teams culled urchins to target densities in winter and spring of 2017.



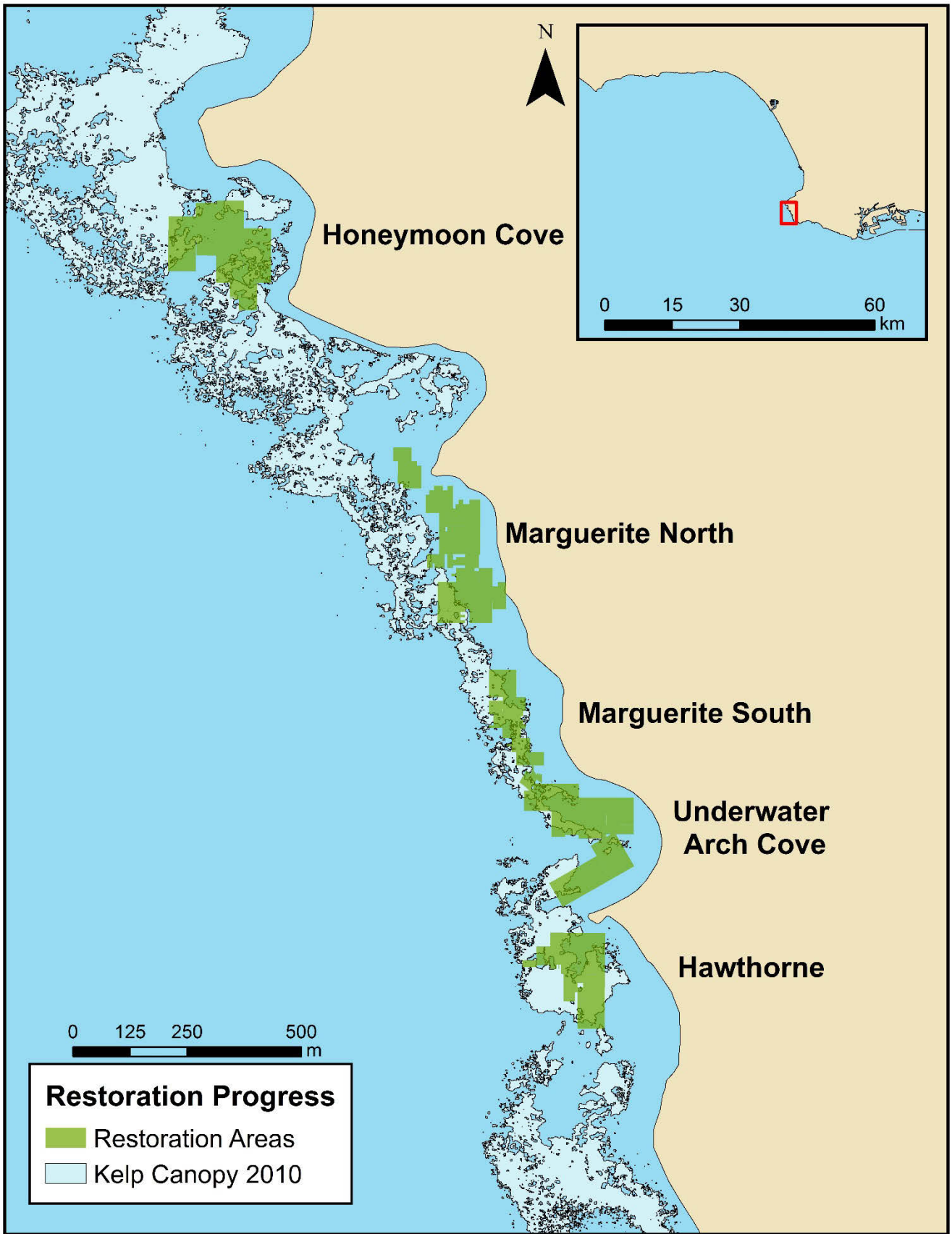
Map A8. Aerial kelp canopy coverage (*Macrocystis pyrifera*) from 2007. Data provided by MBC Applied Environmental. Canopy coverage is represented in light blue while restoration areas are in green.



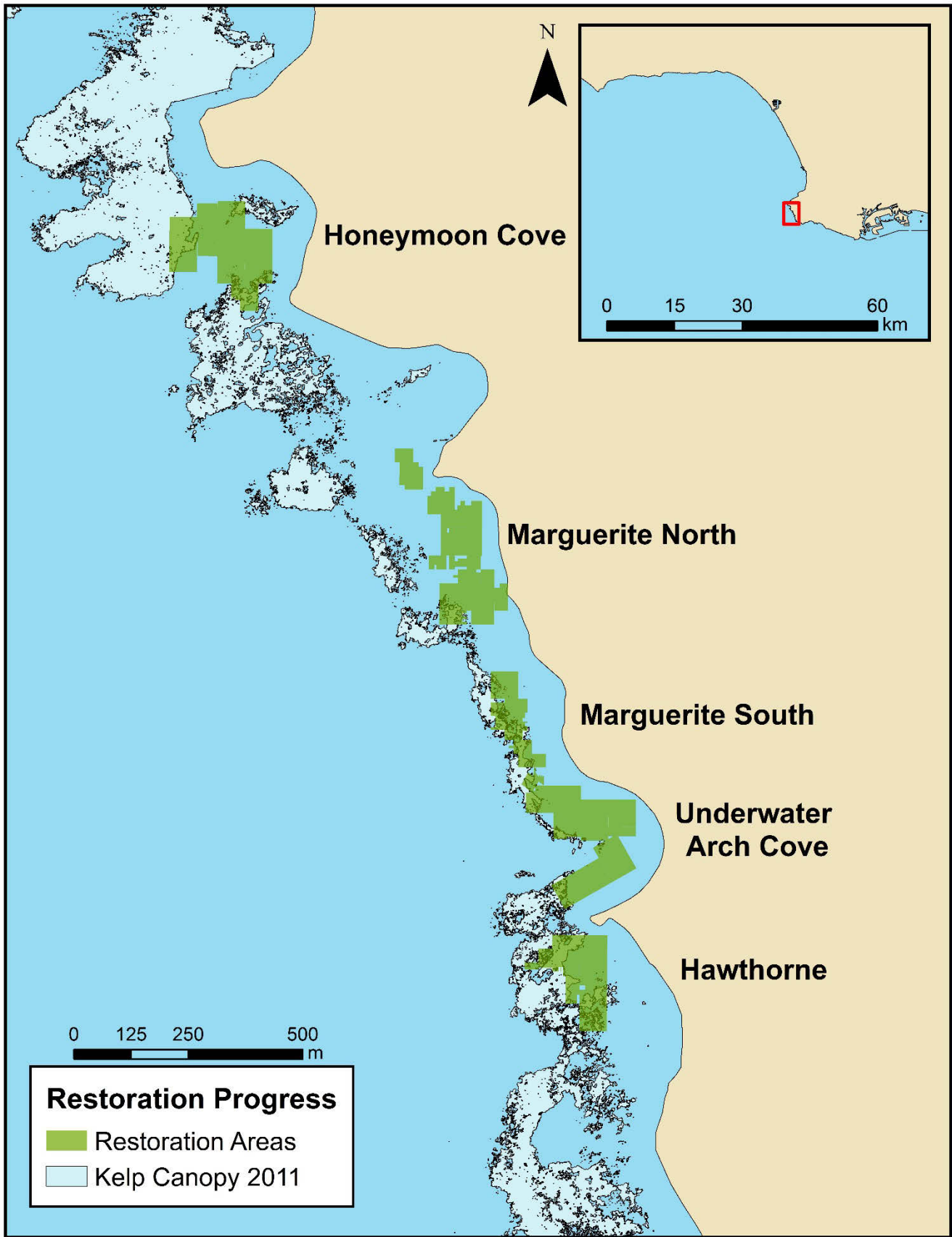
Map A9. Aerial kelp canopy coverage (*Macrocystis pyrifera*) from 2008. Data provided by MBC Applied Environmental. Canopy coverage is represented in light blue while restoration areas are in green.



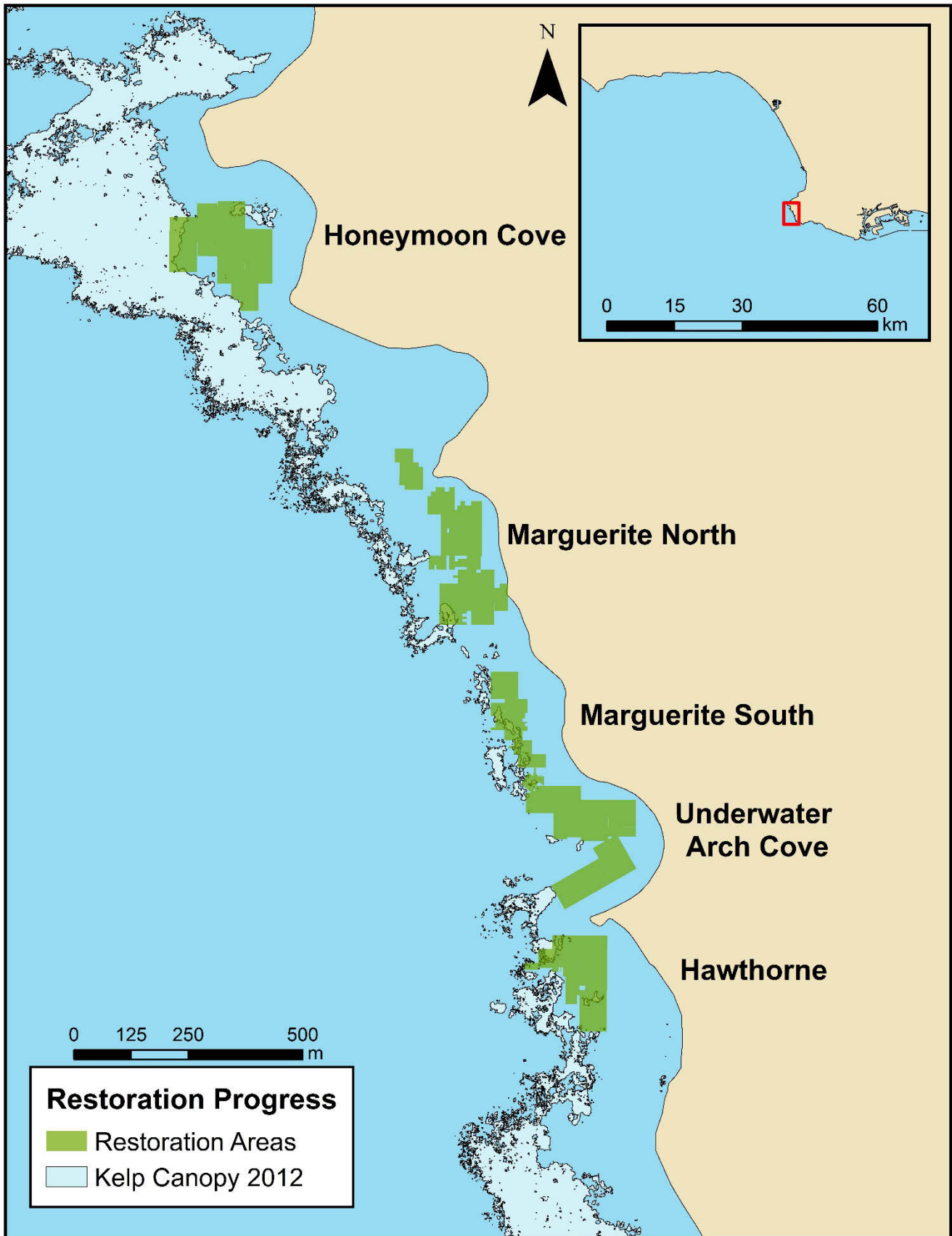
Map A10. Aerial kelp canopy coverage (*Macrocystis pyrifera*) from 2008. Data provided by MBC Applied Environmental. Canopy coverage is represented in light blue while restoration areas are in green.



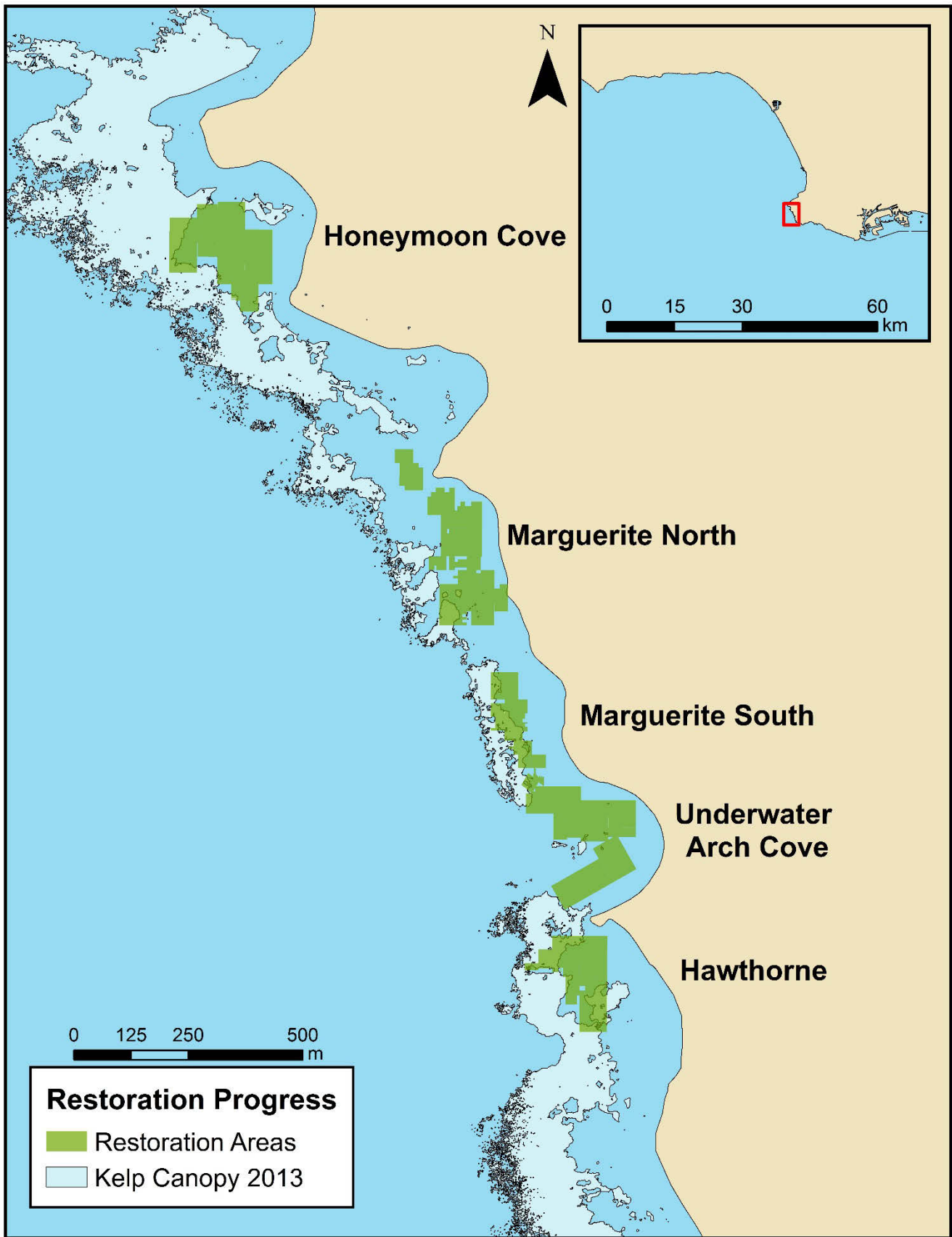
Map A11. Aerial kelp canopy coverage (*Macrocystis pyrifera*) from 2010. Data provided by MBC Applied Environmental. Canopy coverage is represented in light blue while restoration areas are in green.



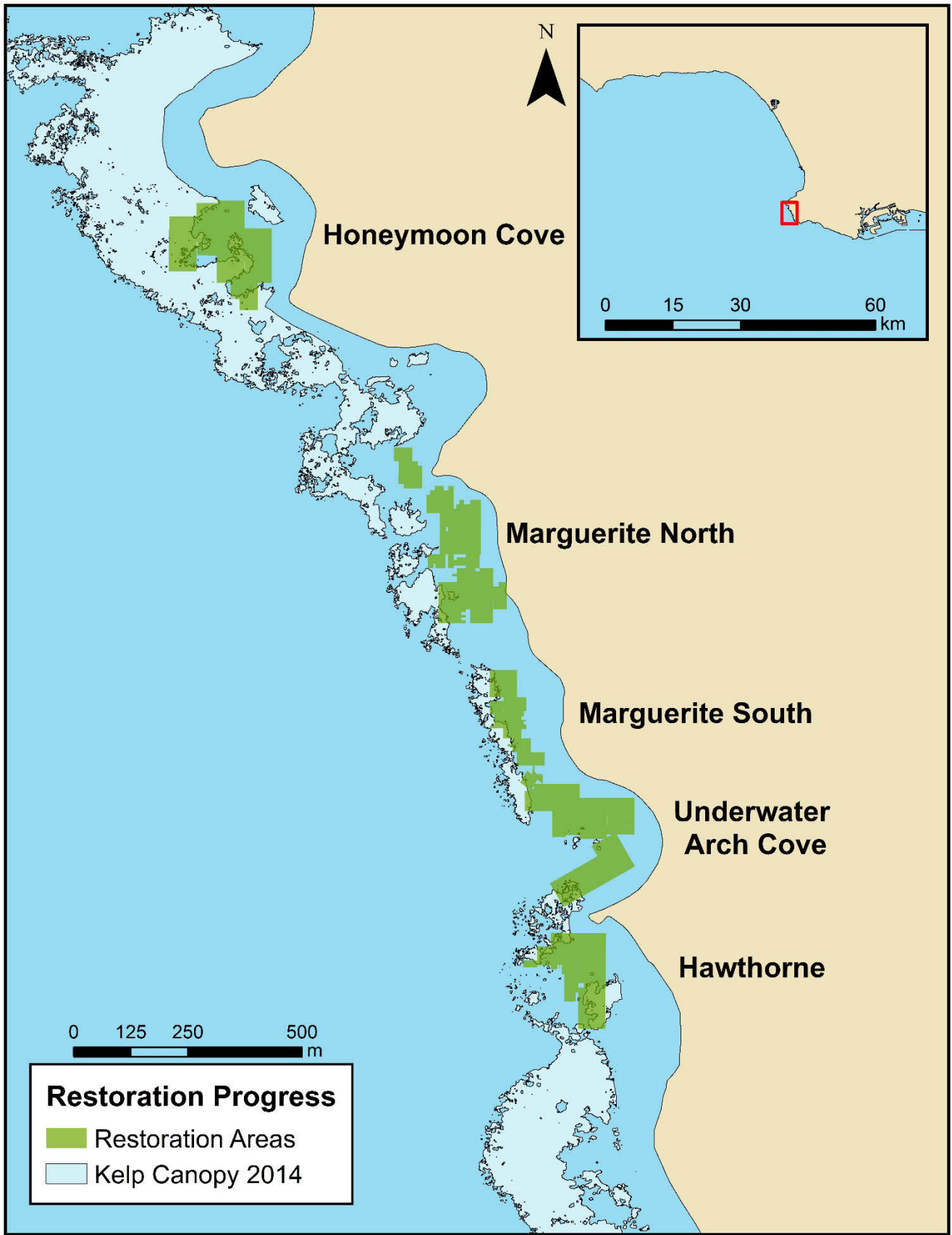
Map A12. Aerial kelp canopy coverage (*Macrocystis pyrifera*) from 2011. Data provided by MBC Applied Environmental. Canopy coverage is represented in light blue while restoration areas are in green.



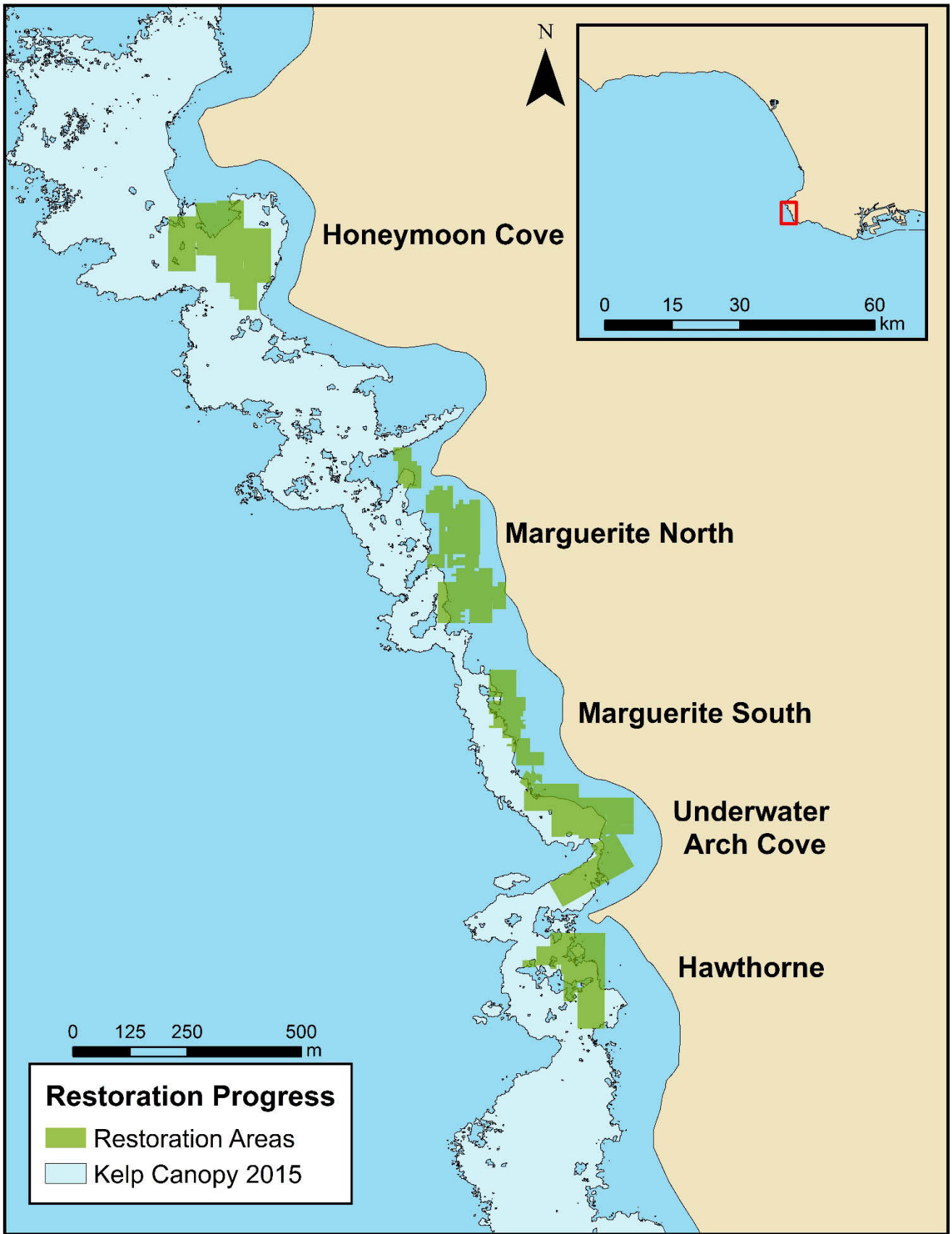
Map A13. Aerial kelp canopy coverage (*Macrocystis pyrifera*) from 2012. Data provided by MBC Applied Environmental. Canopy coverage is represented in light blue while restoration areas are in green.



Map A14. Aerial kelp canopy coverage (*Macrocystis pyrifera*) from 2013. Data provided by MBC Applied Environmental. Canopy coverage is represented in light blue while restoration areas are in green.



Map A15. Aerial kelp canopy coverage (*Macrocystis pyrifera*) from 2014. Data provided by MBC Applied Environmental. Canopy coverage is represented in light blue while restoration areas are in green.



Map A16. Aerial kelp canopy coverage (*Macrocystis pyrifera*) from 2015. Data provided by MBC Applied Environmental. Canopy coverage is represented in light blue while restoration areas are in green.