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Eileen Maher
Assistant Environmental Director
Environmental Services Department
San Diego Unified Port District
PO Box 120488
San Diego, CA 92112-0488

Dear Ms. Maher,

This letter serves as our progress report for the fourth quarter of 2009 for our project “Movement and population size of spiny lobsters in San Diego Bay” (Hovel and Neilson).

The trapping and tagging component of our project ended in September 2009. We continue to receive information on captures by fishers (primarily hoopnetters) by phone; we have received reports on approximately 30 lobsters that have been caught in several areas of San Diego Bay and along the outer coast. While this information is not as valuable as our own trapping for determine lobster movement, it indicates to us that lobsters are retaining the t-bar tags and that when we resume trapping ourselves this spring, we should be able to continue to find tagged lobsters.

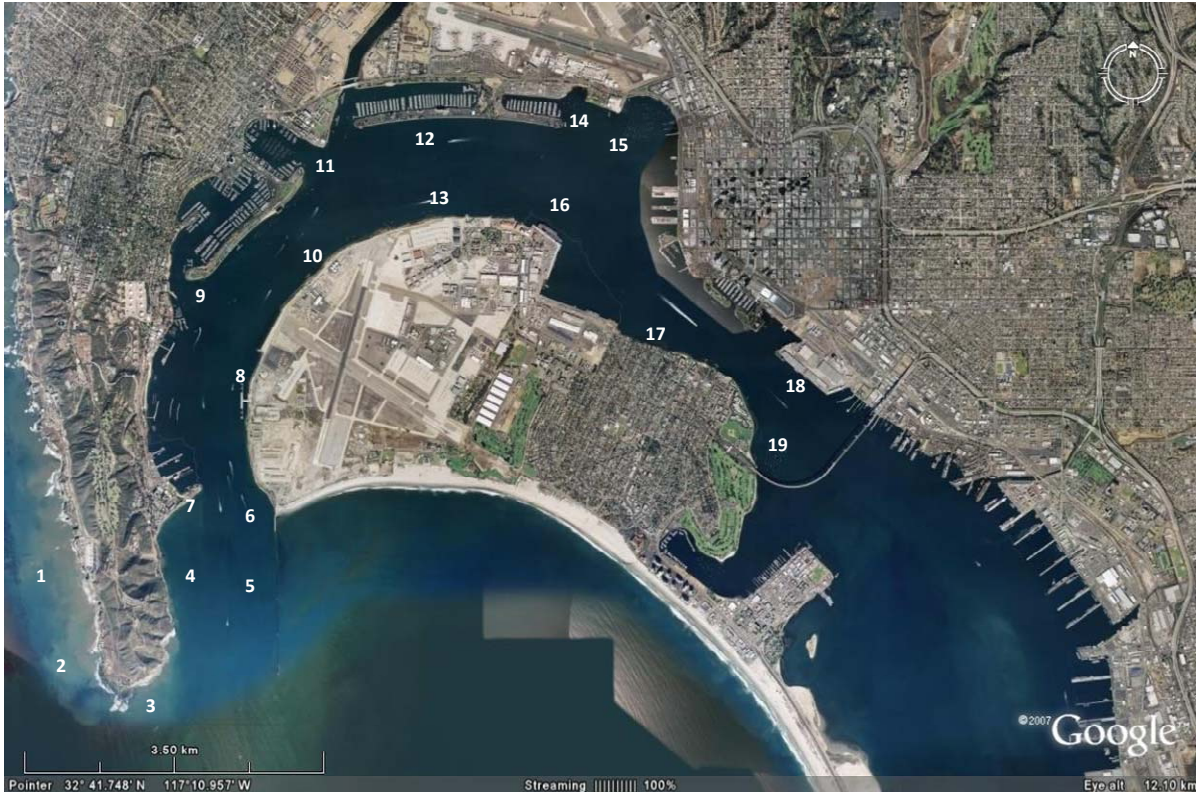
We also have continued to collect data on acoustically tagged lobsters inside and outside of San Diego Bay. We performed another round of receiver downloads in December 2009, and will be diving on our receivers to download data once again in February 2010. Our data from December continues to show an overall trend for high rates of lobster retention at most sites (i.e., relatively little lobster movement) though some lobsters are very mobile and travel among sites, primarily near the mouth of the bay along Zuniga jetty. The attached graphs provide some examples of lobster movement patterns inside and outside of the Bay.

We also have taken a preliminary look at lobster abundance by performing some initial calculations of lobster abundance based on our capture/recapture data (see table 1, page 2). Please note that these are only preliminary estimates of lobster abundance at each site, and that in the upcoming months we will be checking our assumptions and validating the models by which these estimates were derived. Therefore, they should be considered preliminary estimates only, that are likely to be modified as the study continues. For instance, when we obtain more information on lobster movement, we will be able to factor this into the calculations and some site estimates likely will decrease.

We look forward to continuing to work with the Port of San Diego on this project and on future projects in San Diego Bay.

Sincerely,

Dr. Kevin A. Hovel



Station	Location	Population Estimate
4	Along inside shoreline of Pt. Loma	45,294.50
5	Zuniga Jetty, bay side	8,012.90
6	Zuniga Jetty, concrete dolphin	42,568.25
7	Ballast Pt. eelgrass bed	50,350.00
8	Fish structures and eelgrass bed on North Island	8,936.58
9	South end of Shelter Island	4,705.00
10	North Island shoreline, off storm drain	19,365.42
11	Shelter Island, north end	1,347.67
13	I beams off ramp no. 7, west of "J&K" pier	1,333.64
14	East end of Harbor Island near Reuben E. Lee	1,958.50
15	Coast Guard station, near rip-rap	263.15
16	North Island shoreline, off ramps and hangars	2,495.00
17	Eelgrass and rocks in front of Marriott Hotel	960.75
18	Embarcadero Park South, fish structures	320.30
19	North of Coronado Bay Bridge, near marina	621.99
Total		188,533.65

List of figures.

Figure 1. Example of a female lobster resident at mid-bay sites. This lobster was tagged on May 29, 2009 at site 18 (red dot) and was 82 mm in carapace length when tagged.

Figure 2. Example of a female lobster generally resident along North Island. This lobster was tagged on May 29, 2009 at site 13 (red dot) and was 83 mm in carapace length when tagged.

Figure 3. Example of a female lobster that moves widely throughout San Diego Bay. This lobster was tagged on June 6, 2009 at site 16 (red dot) and was 71 mm in carapace length when tagged.

Figure 4. Example of a female lobster resident at the mouth of San Diego Bay. This lobster was tagged on June 2, 2009 at site 4 (red dot) and was 77 mm in carapace length when tagged.

Figure 5. Example of a male lobster generally resident at Point Loma, outside of San Diego Bay. This lobster was tagged on June 22, 2009 at site 2 (red dot, outside the Bay) and was 81 mm in carapace length when tagged.

Figure 2

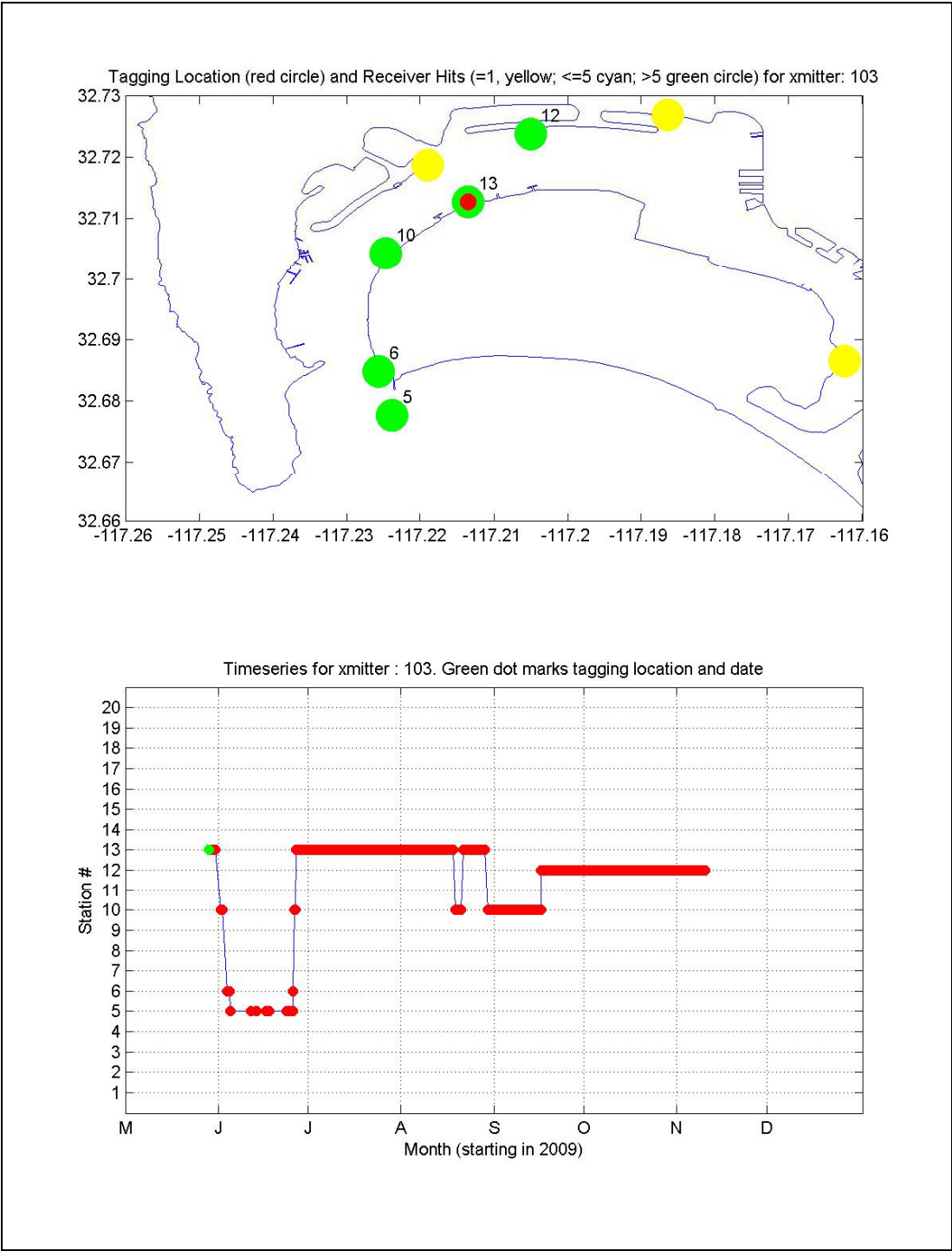


Figure 3

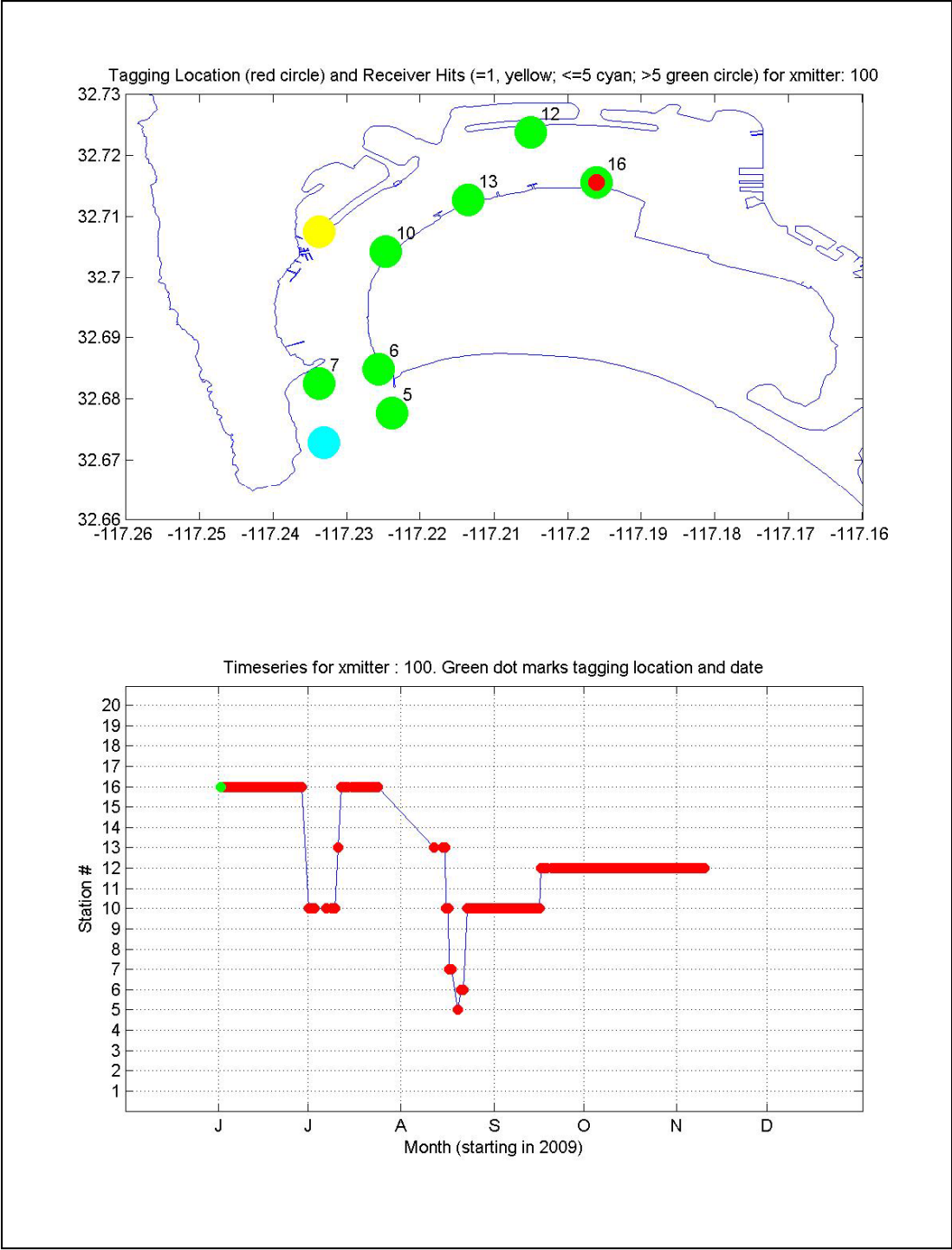


Figure 4

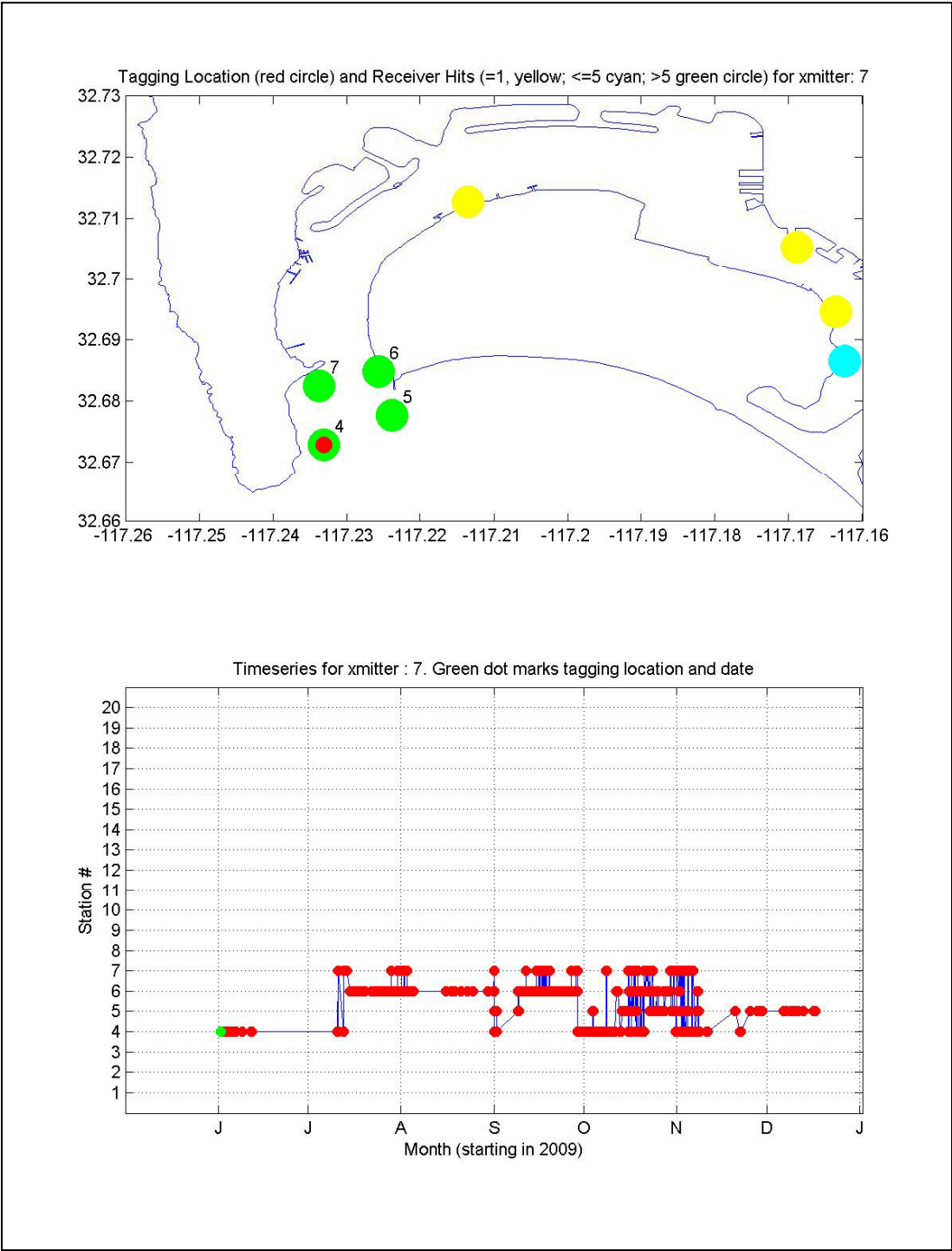


Figure 5

