

Zebra Mussel Monitoring Program in California

Quarterly Progress Report-Contract No. 06-63

Project period: April 1, 2006 through June 30, 2006

Submitted to:

Pacific States Marine Fisheries

Submitted by:

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Adult monitoring

Lake Mendocino County Parks was the only new volunteer in California enlisted into the PSU Zebra Mussel Monitoring Program between 1 April 2006 and 30 June 2006. Big Bear Lake was contacted and has already placed zebra mussel monitoring substrates modeled after the PSU Zebra Mussel Monitoring Program. However, they have yet to officially enroll within the PSU Program. A lake management meeting was scheduled in May and the extent of collaboration was a topic of discussion. Los Angeles County Parks was also contacted and has expressed interest in collaborating with the PSU Zebra Mussel Monitoring Program. They were specifically interested in public education and awareness; LA County Parks already has personnel inspecting vessels at boat launches for life preservers and fire extinguishers. Table 1 summarizes locations of adult artificial substrates as well as last reporting dates. Most of the substrates are in the state of California with the exception of several in Lake Mead and the lower Colorado which straddles the borders of California, Arizona and Nevada.

Veliger monitoring

In addition to continued expansion of the adult zebra mussel substrate monitoring in California, CLR personnel conducted field sampling in Lake Mead and the Lower Colorado River on June 2 and June 3. Sites in Lake Mead were accessed by boat belonging to and piloted by Zebra Mussel Volunteer Monitoring Network volunteer Wen Baldwin. Sampling sites in the lake were located at five bays or marinas at which the volunteer has been monitoring for adult zebra mussels using pvc colonization substrates. Horizontal plankton tows were made at both the docks and the breakwaters in each of the five sites. Samples from docks and breakwaters were kept separate resulting in a total of 10 samples from Lake Mead. Plankton tows were also made in the Lower Colorado River above Davis Dam using a canoe to access the sites. All samples were preserved in ethyl alcohol for later analysis in the PSU Center for Lakes and Reservoirs laboratory. Each sample was subsampled and viewed at 300X total magnification using cross polarized light. Results are contained in Table 1. No veligers were found in the samples examined. The sample from Katherine Landing was unusable because alcohol was not added to it as a preservative.

Table 1. Sampling sites and results for June, 2006

Sampling site name	Date	Results
Lake Mead - Callville dock	6/2/2006	negative
Lake Mead - Callville breakwater	6/2/2006	negative
Lake Mead - Echo Bay launch	6/2/2006	negative
Lake. Mead - Echo Bay breakwater	6/2/2006	negative
Lake Mead - Temple Bar dock	6/2/2006	negative
Lake Mead - Temple Bar breakwater	6/2/2006	negative
Lake Mead - LV Boat Harbor dock	6/2/2006	negative
Lake Mead - LV Boat Harbor breakwater	6/2/2006	negative
Lake Mead - Lake Mead Marina dock	6/2/2006	negative
Lake Mead - Lake Mead Marina breakwater	6/2/2006	negative
Colorado River - Cottonwood Cove	6/3/2006	negative
Colorado River- Katherine Landing	6/3/2006	n/a

ANS Reporting

No zebra mussels were reported on the substrates nor were any organisms sent in for identification from the CA volunteers between 1 April and 30 June 2006. New Zealand Mudsnaills were reported in Lake Piru.

Regional Coordination

Expansion of the adult substrate monitoring program will continue to focus on high risk waterbodies in the San Joaquin-Sacramento River area, the lower Colorado River, waterbodies in the southern part of the state with high boater traffic, and municipal/regional water agencies such as Los Angeles Water and Power. In addition to expanding adult substrate monitoring, training material is being organized and delivered to Big Bear Lake and Los Angeles County Parks. The focus of the training material is identification of high risk vessels and the locations to search on those vessels as well as the legal jurisdiction for the respective agency.

Table 2. Adult zebra mussel substrate monitoring summary

Latitude	Longitude	Waterbody name	Physical description	State	Program	Sample method	Last sample reported
38.1072	-121.5988	San Joaquin River	dock	CA	PSU	Artificial substrate	Oct. '05
38.129032	-121.58293	Mokelumne River	dock	CA	PSU	Artificial substrate	Mar. '06
38.09765	-121.5684	Mokelumne River	East dock corner	CA	PSU	Artificial substrate	Oct. '05
39.145275	-120.96612	Rollins Reservoir	dock next to ramp	CA	PSU	Artificial substrate	Not active
38.158772	-121.67961	San Joaquin River	dock	CA	PSU	Artificial substrate	Dec. '05
38.03167	-121.75402	San Joaquin River	dock	CA	PSU	Artificial substrate	Nov. '05
32.88341	-116.8053	El Capitan Reservoir	end of main boat dock	CA	PSU	Artificial substrate	Oct. '05
32.9146	-117.0999	Miramar Reservoir	boat dock	CA	PSU	Artificial substrate	Oct. '05
32.6198	-117.0421	Murray Reservoir	main boat dock	CA	PSU	Artificial substrate	Oct. '05
32.6167	-116.9323	Lower Otay Lake	main boat dock	CA	PSU	Artificial substrate	Oct. '05
33.1061	-116.7840	Lake Sutherland	main boat dock	CA	PSU	Artificial substrate	Oct. '05
32.9146	-116.9265	San Vicente Reservoir	float at center of restricted area buoy line	CA	PSU	Artificial substrate	Oct. '05
37.5885	-118.7062	Crowley Lake		CA	PSU	Artificial substrate	Nov. '05
36.2294	-117.9656	Haiwee Reservoir		CA	PSU	Artificial substrate	Nov. '05
		Owens Valley Aqueduct		CA	PSU	Artificial substrate	Nov. '05
39.127336	121.92639	Sacramento River	dock	CA	PSU	Artificial substrate	Not active
38.605583	-121.52916	Sacramento River	main dock-under ramp near shore	CA	PSU	Artificial substrate	Apr. '05
38.242218	-121.51056	Sacramento River	south end of marina	CA	PSU	Artificial substrate	Dec. '05
38.169394	-121.63671	Sacramento River	boat dock in a slough off the main river	CA	PSU	Artificial substrate	Not active
38.8	-120.8892	So. Fork American River	tree limb over river	CA	PSU	Artificial substrate	Nov. '05
36.4481	114.3539	Lake Mead	#6 Overton Beach	NV	PSU	Artificial substrate	March 06
36.0532	-114.808	Lake Mead	#2 Lake Mead	NV	PSU	Artificial substrate	March 06
36.1408	-114.7186	Lake Mead	#4 Callille Bay	NV	PSU	Artificial substrate	March 06
36.3049	-114.4173	Lake Mead	#5 Echo Bay	NV	PSU	Artificial substrate	March 06
36.1199	-114.8597	Lake Mead	#3 Las Vegas	NV	PSU	Artificial substrate	March 06
36.2898	-114.777	Lake Mead	#1 Las Vegas	NV	PSU	Artificial substrate	March 06

