	0 <i>Rana sierrae</i> tadpoles	16 <i>Rana sierrae</i> tadpoles	Bd+	0 <i>Rana sierrae</i> tadpoles	16 <i>Rana sierrae</i> tadpoles
0 Callibaetis ferrugineus nymphs	4 replicates	4	0 Callibaetis ferrugineus nymphs	2	2
125 Callibaetis ferrugineus nymphs 4 4 4	4	125 Callibaetis	2	2	
	4	4	ferrugineus nymphs	2	2

Figure 1. Consumer-resource factorial experiment design, with four replicates for each combination of consumers.

Figure 2. Consumer-resource factorial experiment design with Bd status for sublethal effects experiment incorporated.

		No Con	sumers		Mayflies, no tadpoles			Tadpoles, no mayflies			Tadpoles and mayflies					
Tadpole - mayfly	0-0	0-0	0-0	0-0	0-125	0-125	0-125	0-125	15-0	15-0	15-0	15-0	15-125	15-125	15-125	15-125
rep 2	7	12	6	11	3	15	2	5	4	9	1	14	16	10	8	13

Figure 3. Randomization of treatments among 16 mesocosm tanks.

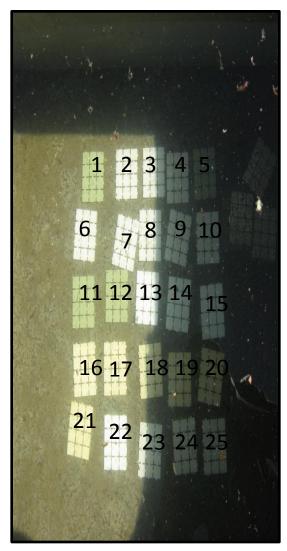


Figure 5. Arrangement of 25 arrays of tiles on mesocosm bottom. Proposed "step-wise with replacement" epiphyton substrate sampling schedule:

1) Weekly: 15, 25, 11, 7, 9, and five shelf arrays
2) Week 1 and end: 23, 8, 24, 4, 10
3) Week 2 and end: 19, 3, 22, 20, 16
4) Week 3 and end: 21, 17, 1, 6, 5
5) End: 18, 13, 14, 2, 12

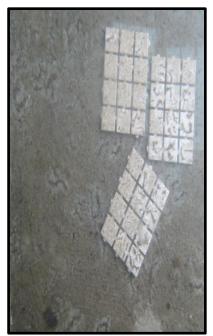
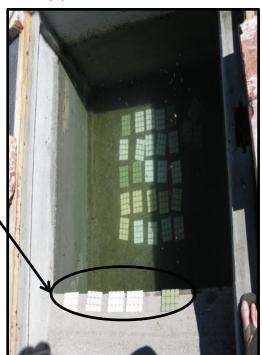


Figure 4. Appearance of 3 tile arrays in mesocosms on 22 June 2010, placed in late April 2010. Epiphyton growth on tiles and concrete in all 16 mesocosms appears similar.

Figure 6. Photo depicts the placement of 5 tile arrays on the shallow shelf (circled) and 25 in the deep part of a mesocosm.



## Elevations of frog+ and frog- lakes in different regions

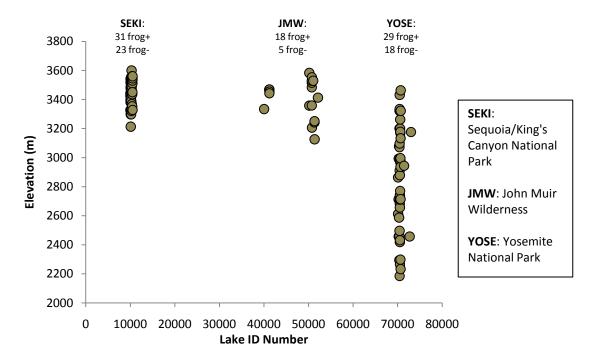
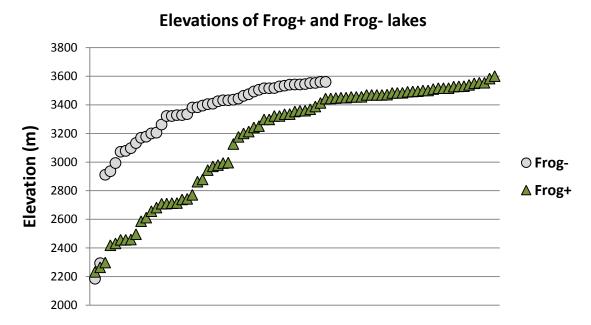


Figure 7. Sets of fishless lakes with benthic surveys. X-axis displays the 5 digit LakeID. First digit of the LakeID indicates the jurisdiction it is in, e.g. a lake with ID 10090 is in Sequioa/King's Canyon NP. Y-axis displays lake elevation. Notations above groups of lakes indicate number of lakes with frogs and lakes without frogs in initial surveys by Roland.

Figure 8. Elevations of lakes with frogs and lakes without frogs in the dataset.



## **Elevations of SEKI frog+ and frog- lakes**

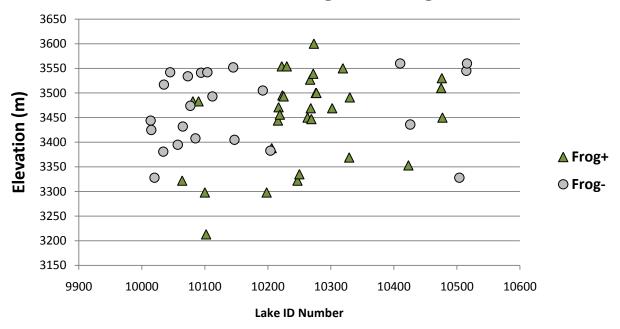


Figure 9. Elevations of lakes with frogs and lakes without frogs in the SEKI subset of the data.