



Governing Board Meeting 4 December 2015

Pre-Meeting

9:00 am to 9:30 am | Coffee and pastries

Call To Order

9:30 am | **James Lindholm**
Introductions
- New Members
Approval of Minutes from May 4, 2015

Director's Report

9:45 am | **Jim Harvey**
Faculty/Staff Updates
Parker Retirement/Librarian Candidate, Faculty
Colleen Durkin, Research Faculty
Kathleen Donahue, Assistant to the Director
Terra Eggink, Graduate Program Coordinator
Marine Operations Manager
Web Administrator
Visiting Scientist AY15-16, Dr. Corey Garza, CSUMB
Visiting Scientist AY16-17, Dr. Michael Lee, CSU East Bay
Graduate Program Report
- Scholarships
Annual Report for Chancellor
Aquaculture "Center"
Funding (COAST, Sea Grant)
Meeting on 13-14 January 2016
MLML Open House (dates tbd)

10:30 am

BREAK

10:45 am

SJSU/CSUMB

12:00 pm

LUNCH – Committee Meetings

12:15 pm

Funding-Budgets

State

SJSU Research Foundation

Kam Lam, SJSURF Controller

SJSU Tower Foundation

Curriculum Committee

50th Anniversary

Update on planning

Blogs

Commemorative Book

Donations-Budget

MLML Web and Media

1:45 pm

General/Other Business

Announcements

2:00 pm

ADJOURN





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Moss Landing Marine Laboratories Governing Board Meeting Minutes from May 4, 2015

Attendees: Jim Harvey (MLML, Director), James Lindholm (CSUMB, Governing Board chair), Ivano Aiello (MLML, faculty), Nick Welschmeyer (MLML, faculty), Scott Hamilton (MLML, faculty), Jon Geller (MLML, faculty), Jane Fusek (MLML, Assistant to the Director), Marsha Moroh (CSUMB, Dean), Tyler Evans (CSU East Bay, faculty), Karina Nielsen (SFSU, Director Romberg Tiburon Center), Tomoko Komada (SFSU, faculty), Pam Stacks (SJSU, Assoc. Vice President Graduate Studies & Research), Jeanne Dittman, (SJSU, Sponsored Programs), Michael Parrish (SJSU, Dean)
Michelle Keefe (MLML), Brynn Kaufmann (MLML graduate coordinator), Jane Scuytema (MLML)

Call to Order (James Lindholm): 9:42am
Introductions

Approval of minutes from Dec. 5th - approved

MLML Director's report

- *Minutes action item to be addressed*

Curriculum committee to iron out scheduling to be more efficient and aligned with SJSU and CSUMB classes

-*Graduate program updates* (from Brynn Kaufmann)

- 67 enrolled graduate students; 7 graduating; 17 confirmed newly admitted (2 more waiting for confirmation) in fall 2016. About 70 applicants this year and on average MLML takes about a quarter of applicants.

- Average graduating rate is 4.5 years. Graduating rate and time is improving. The semester thesis symposium proposal has helped along with implementing the probation policy for not meeting proposal deadlines. Students better understand the guidelines.

- Question was posed on proposal process and how well proposals match their final thesis. No formal analysis done on this but the MLML faculty who were present stated that proposals match final theses well.

- Brynn, the MLML graduate coordinator, is leaving at the end of May 2015.

Marine Ops and the R/V Point Sur

- NSF decided to remove the R/V Pt. Sur from its assets, so she was sold. She was sold (\$875,000) to the University of Southern Mississippi and she left MLML approximately 6 weeks ago.



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- The Pt. Sur financially enabled operation of smaller vessels at MLML. Now, MLML has to rethink how to operate the rest of our vessels without proceeds from the Pt. Sur.
- Marine Ops staff was about 7-8 full-time staff, but without NSF funding almost all of the staff are gone. Grad students can be hired to help with vessel maintenance, and a second captain will probably be hired.
- MLML still operates the R/V John Martin which can be used for class field trips but is limited on the number of people it can support at one time. This also limits consortium participation (free of charge) on class and other cruises. Outside organizations joined the class cruises as well (i.e. the Monterey Bay Aquarium, community colleges). Typical class cruise days numbered 10 annually (5 per semester).
- Jim would like to discuss consortium participation on research cruises with consortium campuses in the near future.
- Funds from the Pt. Sur cannot be used to buy another vessel but could be used to retrofit a vessel. One idea is to sell the John Martin and buy another mid-size vessel and use Pt. Sur funds to retrofit it, but it is unclear if this is economically feasible based on demand. Per NSF, a decision on how the funds will be used must be made by 2017.

Aquaculture facility

- Leftover Packard funds from rebuilding the lab after the earthquake were used to build a new aquaculture facility down at the shore lab.
- MLML is entertaining the concept of establishing an aquaculture center beyond the consortium to the whole CSU. Huge interest in aquaculture right now, including federal and state funds, so MLML has moved forward with pursuing projects that use seawater. Mike Graham, Scott Hamilton, Jim Harvey, and Jason Smith from MLML are all engaged in this venture; as well as Michael Lee (CSU East Bay), Matt Edwards (SDSU), Larry Riley (Fresno State), and Rafael Cuevas Uribe (Humboldt State) expressing interest. Sue DeRosa (Chancellor's Office) said she would bring up a CSU-wide aquaculture center with the Chancellor's office, as they are already discussing such "affinity" groups.
- This is a popular idea presently, especially if it includes sustainable practices. The UC system is also discussing developing an aquaculture program.
- The aquaculture center with a 3-prong approach including an education component with a CSU-wide curriculum and a hands-on approach, a research component with a consortium of faculty from different campuses, and a policy component to help with public education, sustainability, and best practices (CSUMB, MIIS, and CSU East Bay have expressed interest in playing a part in the policy aspect).
- Recent funding from CSU COAST to support proposal writing for sustainable aquaculture program.

Faculty/staff updates



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- A dynamic time for faculty at the lab. Gitte McDonald arrived in January to take over the Vertebrate Ecology lab from Jim. Tom Connolly, our new physical oceanographer, arrives in August along with his wife, Colleen Durkin, who is a biological oceanographer. MLML is applying for a research faculty position for Colleen.
- MLML librarian, Joan Parker, is retiring at the end of the year. The lab hopes to hire someone who could augment teaching and information technology at the lab as well as handle important library responsibilities.
- Assistant director to the lab, Jane Fusek, is leaving at the end of June. Moving forward with the hiring process.
- Jon Geller's term as faculty chair is up and Ivano Aiello is taking over in July.
- New executive director at the SJSU Research Foundation is very close to being hired. The Research Foundation plays an important part at MLML. Hiring of the new executive director incorporated MLML input.

SJSU/CSUMB discussion

- SJSU and CSUMB presidents spoke with the CSU Chancellor. SJSU has a more financial investment because it administers MLML. SJSU would like a more sustainable model for supporting MLML.
- CSUMB's perspective is one of interest in being more associated in the lab, possibly administratively. They would like a closer connection with the lab for education as CSUMB's marine science program continues to grow.
- A high level committee was formed to discuss these options but another meeting is needed to discuss what's next.
- Student enrollment at MLML through CSUMB has increased and surpassed SJSU enrollment.
- Up until 1995, MLML was solely supported through the central CSU. Currently, it costs approximately \$3.2 million a year to support the labs from state funds. According to a study by SJSU, \$1.5 million of funds comes from the central CSU and \$1.7 million comes directly from SJSU. This has changed the dynamics of the consortia model.
- Theoretically, according to the SJSU study, if another consortium campus were to take over MLML, \$1.5 million in funding from the central CSU would come with MLML but additional funding would have to be provided from the new campus.
- Potential to reconsider the old model of having MLML supported entirely through central CSU funds. In addition, new models for organizing marine science programs as a whole throughout the CSU. Though encouraged, there has been little mechanism for collaborating among consortia presently. The Chancellor's Office should look at the various CSU field stations and globally expand the consortia model.
- The Chancellor's office is currently considering how high/important research is within the CSU. Campus provosts should be actively promoting/supporting the high placement of research



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to the Chancellor's office. The National Research Council report emphasized the need to promote Masters programs. Increased awareness of the value of research is needed in the CSU.

- What should the governing board's approach/next steps be on this issue? Propose a different funding model to consortium presidents. Potentially splitting MLML student enrollment among consortium campuses could be a selling point for consortium investment in MLML. The relatively few students that enroll at MLML would not make a significant financial contribution to consortium campuses but could bolster the psychological investment in MLML.
- The FTES model for funding a Masters program like MLML's is not workable.
- A structured plan for how to move forward with encouraging consortium support and alleviating financial burden on consortium campuses is needed. However, each consortium has different interests in MLML that vary between coastal and inland campuses.
- Until the pending discussion between the Chancellor's Office and CSUMB and SJSU presidents occurs, it will be unclear what the future of MLML will be both financially and academically.

MLML 50th anniversary

- MLML started in 1966 so 2016 is the 50th anniversary. A committee has been set up to plan for an event on Aug 5-7th, 2016. A large party will take place on Saturday that will include present and former graduate students, faculty and staff, and governing board members. An event on Friday will include, hopefully, some politicians and other public figures.

Open House 2015

- Open House was April 11-12th. About 2,200 people attended. The power went out on Saturday but we got through it. Students raised about \$8,000 for scholarships. A big event that we're very proud of. A lot of community support.

Visiting Scientist

Two CSU faculty members have applied for the 2016-17 visiting faculty position. The application period just ended and soon an assessment and announcement will be made. Corey Garza from CSUMB will be the next Visiting Scientist (2015-16).

Consortium issues discussion continued after break

- What would make MLML your consortium marine lab? What could we do to provide a consortium model that is more tangible and usable to a particular campus?
- CSUMB: has over 400 undergraduate marine science majors at this time. Faculty scientific content and expertise at MLML is invaluable. CSUMB could utilize this and not have to replicate it at CSUMB. CSUMB has a close proximity to MLML; but distance is probably a significant issue for other campuses.



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- CSUMB has never considered a marine mammal person or developing the oceanography fields at CSUMB. MLML does offer these focuses and CSUMB would like their faculty to compliment what MLML offers.
- CSUMB would also like to MLML faculty to teach at CSUMB, especially upper division marine science electives. MLML is close enough for this to not be too inconvenient for MLML faculty.
- Housing at MLML for students to come and attend for a semester is a potential option.
- CSUFresno: currently no clear direction due to administrative transitions. New chair may change decision to not hire a Marine Biologist. Understands the all-day class schedule matrix at MLML. Due to the considerable distance from MLML, Fresno students are advised to request admission via SJSU or CSUMB.
- CSU East Bay: their quarter system will end in 2018; until then it is hard for students to attend MLML. The need is there though; Scientific Diving is a good example.
- SFSU: they have their own Marine Science program. Karina (new director) is not sure what the future holds; at the minimum, collaboration with MLML intellectually. Current dean is retiring at SFSU. Tomoko has interest in open ocean research, and would benefit from using online data sets.
- SJSU: their students have the logistics challenge of travelling to MLML. If there was housing and a one semester, 12 unit, intense program that ties into their degree requirements, that would be better.
- There is increasing interest in Geological Oceanography, Earth Sciences.
- FYI: CSU policy is emphasizing the need to keep cross-listed courses balanced appropriately so that graduate students do not suffer due to undergrads also being in the class.
- Discussion again returns to the need for housing. MLML has a substantial report that supports the concept of building an “Academic Village” on the property adjacent to the lab. Next step is getting money to fund architectural drawings. A construction plan would be in stages: start on a small scale and move forward when feasible.
- Overall, MLML’s concern is to be relevant to the consortium members. As the CSU moved away from the old consortium model financially, MLML’s situation has become less clear. The challenge is to continue the success of MLML; can the consortium become stronger? Aquaculture is a new tie-in potentially. The good aspects of a consortium are synergy, political power. The bad aspects are the challenges of degree requirements and the distance issue.
- At this point, it is in the hands of the presidents from SJSU and CSUMB, in terms of discussing a new financial and/or administrative model for the operation of MLML.

Continuation of Director’s Report

Review of MLML Budgets

- Stateside notes: MLML budgets a line in Operating Expenses to hire graduate students. The Library gets \$99,000 for expenses; MBARI matches this. Besides the usual academic type of



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categories, there are budget lines for Information Technology, Diving, Facilities. One of the special projects this year is purchasing a new dive truck. Next year, MLML proposes to upgrade another of the classrooms; similar to the very successful remodel of the “Think Tank” classroom. This second make-over would enable distance learning.

- Foundation notes: the amount of F & A return varies; how much MLML gets has been tied into how the main campus performs in terms of indirects. Having a more stable budget model is in discussion at the Central Office. Most of the Foundation budget for MLML is used for salaries, wages and benefits. There are also maintenance costs to be covered. In regards to the deficit/loan, this is being paid off. The amount of this loan should be compared to the total worth of the properties that MLML has; at the original cost of these other properties, we are talking about ~\$7 million.

- Grant and contract proposals are down this year so far. Stateside contracts are hindered by new guidelines which favor the unions. MLML does have new people submitting proposals though, via new faculty hires and new research faculty and affiliates.

- MLML’s mix of both stateside and foundation monies complement each other.

Curriculum

In order to move on the action item from last meeting, there will be a special curriculum committee composed of representatives from MLML (Ivano probably), SJSU (Shannon Bros-Seeman) and CSUMB (James Lindholm?).

Other Business

Simona Bartl, who directed the Teaching Enhancement Program, has left MLML. This has left a hole in MLML’s ability to do public outreach and to support local teachers.

Meeting adjourned: 1:20 pm.

Minutes submitted by Heather Kramp and Jane Fusek



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Fall 2015 Graduate Program Report

Fall 2015 FTES

<i>Campus</i>	Total Students by Level			Total Units by Level		FTES	
	<i>Total (U)</i>	<i>Total (G)</i>	<i>Total Enroll</i>	<i>Total (U)</i>	<i>Total (G)</i>	<i>Total FTES</i>	<i>Campus FTE %</i>
East Bay	0	0	0	0	0	0.00	0.00%
Fresno	0	0	0	0	0	0.00	0.00%
Monterey	3	40	43	16	244	21.40	58.31%
Sacramento	0	0	0	0	0	0.00	0.00%
San Francisco	0	3	3	0	11	0.92	2.50%
San Jose	4	30	34	32	147	14.38	39.19%
Stanislaus	0	0	0	0	0	0.00	0.00%
TOTALS	7	73	80	48	402	36.70	

U=Undergraduate (including post baccalaureates); G=Graduate

MLML graduate students enrolled in zero-unit course are included in total enrollment and FTES

Spring 2015 FTES

<i>Campus</i>	Total Students by Level			Total Units by Level		FTES	
	<i>Total (U)</i>	<i>Total (G)</i>	<i>Total Enroll</i>	<i>Total (U)</i>	<i>Total (G)</i>	<i>Total FTES</i>	<i>Campus FTE %</i>
East Bay	0	0	0	0	0	0.00	0.00%
Fresno	0	0	0	0	0	0.00	0.00%
Monterey	6	37	43	28	214	19.70	60.62%
Sacramento	0	0	0	0	0	0.00	0.00%
San Francisco	1	4	5	4	22	2.10	6.46%
San Jose	2	29	31	8	122	10.70	32.92%
Stanislaus	0	0	0	0	0	0.00	0.00%
TOTALS	9	70	79	40	358	32.50	

U=Undergraduate (including post baccalaureates); G=Graduate

MLML graduate students enrolled in zero-unit course are included in total enrollment and FTES



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Fall 2014 FTES

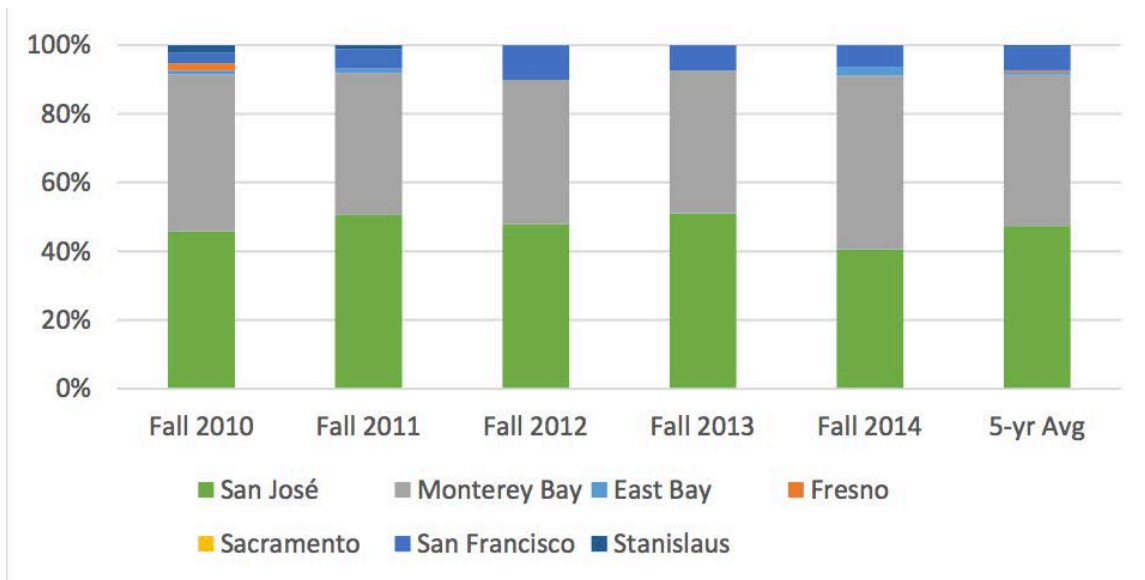
Campus	Total Students by Level			Total Units by Level		FTES	
	Total (U)	Total (G)	Total Enroll	Total (U)	Total (G)	Total FTES	Campus FTE %
East Bay	0	2	2	0	6	0.50	1.32%
Fresno	0	0	0	0	0	0.00	0.00%
Monterey	4	36	40	22	237	21.22	55.91%
Sacramento	0	0	0	0	0	0.00	0.00%
San Francisco	1	4	5	3	24	2.20	5.80%
San Jose	1	31	32	8	162	14.03	36.98%
Stanislaus	0	0	0	0	0	0.00	0.00%
TOTALS	6	73	79	33	429	37.95	

U=Undergraduate (including post baccalaureates); G=Graduate

MLML graduate students enrolled in zero-unit course are included in total enrollment and FTES

*One undergraduate from UCSC was cross enrolled in 3 units. This individual was not included in FTES calculations.

2010-2014 FTES





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Fall 2015 Class Schedule

Course #	Course Name	Professor/'s	Day	Time
CE	Continuous Enrollment	Staff	Arr.	Arr
MS 103	Marine Ecology	Drs. Graham/Hamilton	Th	9-5p
MS 105	Marine Science Diving	Dr. Diana Steller	F	9-5p
MS 112	Marine Birds and Mammals	Dr. Gitte McDonald	M	9-5p
MS 135	Physiology of Marine Algae	Dr. Nicholas A. Welschmeyer	W	9-5p
MS 141	Geological Oceanography	Dr. Ivano Aiello	W	9-5p
MS 142	Physical Oceanography	Dr. Tom Connolly	T	9-5p
MS 180	Independent Study	Staff	Arr.	Arr
MS 202	Oceanographic Instrumentation	Dr. Kenneth H. Coale	M	9-5p
MS 233-2	Advanced Topics in Marine Ecology - <i>Fisheries and Resource Management</i>	Drs. Hamilton/Starr	T	9-5p
MS 280	Scientific Writing	Joan M. Parker	Th	9- 12p
MS 298	Research in Marine Science	Staff	Arr.	Arr
MS 299	Thesis	Staff	Arr.	Arr



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Fall 2015 Graduates

Worden, Sara (SJSU)

Effects of small-scale substrate complexity and heterogeneity on rocky intertidal species interactions

Lawson, Vera (CSUMB)

Abundance and provenance of sand at Bering Sea site U1343: High resolution records from a glacial/interglacial cycle in the mid-Pleistocene

Fennie, Hamilton (Will) (CSUMB)

The effects of ocean acidification on the behavior and physiology of juvenile rockfish

Gabriela Navas (SJSU)

*Morphology, age distribution, and genetic differentiation of the Pacific Geoduck, *Panopea generosa*, in California*

Stephen Loiacono (SJSU)

Effects of substrate warming on sessile marine invertebrate communities in Monterey Bay, California

Melinda Tanner (SJSU)

A sedimentologic analysis of the siliciclastic fraction in Pliocene core sediments from Bowers Ridge, Bering Sea (IODP Exp. 323)

Emily Schmeltzer (CSUMB)

Microbiome sharing between reef-building corals and associated epibiotic gastropods in French Polynesia



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Summer 2015 Graduates

Cruickshank, Marilyn (SJSU)

Predicting stranding patterns of live oiled seabirds and carcass retention in Monterey Bay

Jeffries, Sarah (CSUMB)

*Impact of individual- and population- scale dynamics on growth and reproduction of *Macrocyctis* in central California*

Kuo, Julie (SJSU)

Determination of ballast water efficacy using adenosine triphosphate.

Weeler, Ashley (SFSU)

Multiscale geomorphologic expressions of outcrop lithology in rocky intertidal habitats in Central-Northern California

Spring 2015 Graduates

Barnes, Cheryl (SJSU)

*Reproductive characteristics of California Halibut (*Paralichthys californicus*) off central California, with comparisons to the Southern California Bight.*

Klosinski, Jarred (CSUMB)

Deposition, retention, and utilization of kelp wrack along the central California coast

Raanan, Ben Yair (SJSU)

Environmental drivers of benthic-interior exchange events over the continental shelf of Monterey Bay, California

Szesciorka, Angela (SJSU)

Ship-whale interactions and the effect of ships on the dive behavior of whales in major shipping lanes off San Francisco, CA



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Recent Graduate Student Awards (AY 2014-15 & 2015-16)

CSU California Pre-Doctoral Program Award (AKA Sally Casanova Pre-Doctoral Fellowship)

Keith Hernandez

CSU COAST Student Research Awards

Keith Hernandez

Devona Yates

Dorota Szuta

Martin (Jinchen) Guo

CSU COAST Student Travel Awards

Melissa Nehmens

Catherine Drake

Paul Clerkin

Dr. Earl and Ethel M. Myers Oceanographic and Marine Biology Trust Grants

Christine Mann

Melissa Nehmans

Jen Chiu

Catarina Pien

Emily Schmeltzer

Devona Yates

Heather Kramp

Paul Clerkin

H. Thomas Harvey Research Fellowship/ Evelyn Gerdt's Fellowship

Catarina Pien

Jennifer Keliher

Save Our Seas Foundation's Keystone Grant

Paul Clerkin

International Women's Fishing Association Scholarship

Emily Schmeltzer

Heather Kramp

Great Lakes Scholarship

Emily Schmeltzer



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**Monterey Bay National Marine Sanctuary Currents Symposium, First Place
Graduate Poster Award**

Heather Kramp

SJSU H. Thomas Harvey Research Fellowship

Jennifer Keliher

CSU Graduate Student Grant

Heather Kramp

National Shellfish Association George R. Abbe Student Research Grant

Catherine Drake

SJSU Katherine Peterson General Scholarship

Jennifer Keliher

The Lerner Gray Memorial Fund

Paul Clerkin

SJSU Graduate Equity Fellowship

Jennifer Keliher

MLML Scholar Award

Scott Miler

Jackie Lindsey

Sonia Linnik Hamilton Marine Science Scholarship

Martin (Jinchen) Guo

Captain Lee Bradford Memorial Scholarship

Catarina Pien

Kimberly Peppard Memorial Scholarship

Jennifer Keliher

MLML Wave Awards

Laurel Lam

Steven Cunningham

Lindsay Cooper

Melissa Nehmens

Continuing Student with Proposal

Heather Kramp



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Bobby San Miguel
Heather Fulton-Bennett

John H. Martin Scholarship
Will Fennie

Xiphias Martin Scholarship
Bobby San Miguel

James Nybakken Scholarship
Dorota Szuta



FACULTY HIGHLIGHTS

BIOLOGICAL OCEANOGRAPHY

Dr. Nick Welschmeyer spearheaded an extended cruise on the R/V *Golden Bear* (Cal Maritime Academy) which took them from San Francisco, through the Panama Canal, across the Atlantic, to the Mediterranean for ballast water testing in ports that include SF, Long Beach, Marseilles, Barcelona, Naples and Boston, USA; four Atlantic Ocean crossings was made by the end of the four month cruise.

CHEMICAL OCEANOGRAPHY / TRACE METALS

Dr. Kenneth Coale led a series of workshops and cruises for early career scientists in an NSF funded program: EAGER Chief Scientist Training Program focusing on coastal oceanography aboard the R/V *Point Sur*. The American Association for the Advancement of Science named Dr. Coale as a new AAAS fellow.

GEOLOGICAL OCEANOGRAPHY

Dr. Ivano Aiello's role in the international geological oceanography community was recognized by the Hanse-Wissenschaftskolleg (HWK) Institute (Germany) that nominated him as Fellow for the years 2015-2016. In November 2015 Dr. Aiello organized a workshop sponsored by the US Science Support Program for the International Ocean Discovery Program to synthesize site survey cruise data and develop new strategies for a scientific ocean drilling proposal in the Guaymas Basin in the Gulf of California.

ICHTHYOLOGY

Dr. Scott Hamilton received funding from the National Science Foundation (Biological Oceanography) to examine the effects of selective harvesting on the demography of sex changing fishes, with colleagues at CSU Northridge. He also received funding from the NOAA Habitat Assessment Improvement Plan to investigate life history and demographic variation in lingcod, to provide information to improve future stock assessments. Drs. Graham (Phycology lab) and Hamilton received funding from the COAST Strategic Investment program to support the development of a Center for Aquaculture in the CSU system. Colleagues include Research Faculty Jason Smith at MLML and colleagues from CSU East Bay and San Diego State. Dr. Hamilton received the Early Career Investigator Award at SJSU.

PHYCOLOGY

Dr. Michael Graham and his students continue to study the effects of ocean climate change on recruitment of kelp populations and various projects relative to the utilization of seaweed aquaculture worldwide. You can find Dr. Graham and his students harvesting the seaweed for these projects through the end of the Fall semester at MLML's Center for Aquaculture, and he will be teaching our first 4-unit graduate course in Aquaculture this spring. He has also started coordinating with the COAST office at CSUMB for the planning of the COAST meeting scheduled for 13-14 January 2016 which will bring together CSU Faculty, aquaculture researchers and regional stakeholders to discuss COAST's Strategic Plan for the next five years, 2015-19, and the role of Campus Representatives in its implementation and success. Dr. Graham continues his efforts to further the MASST (Marina Academy for Sustainable Science and Technology) program at Marina High School and is continuing his work as the managing editor of the Journal of Phycology. His lab has 10 graduate students pursuing their M.S. degrees; Sara Worden and Sarah Jeffries recently graduated, and Bobby San Miguel and Heather Fulton-Bennett will graduate in the spring.

RESEARCH DIVING

Dr. Diana Steller

In the Fall of 2014, Dr. Diana Steller helped coordinate the subtidal ecology course that was taught for Spring 2015. She continued her research on algal ecology and co-authored a paper on hurricane disturbance and slow growth in rhodoliths of the Gulf of California. She was also served as a member of the Secretariat of the Western Society of Naturalists alongside other MLML Faculty. Dr. Steller continues to conduct subtidal research, teach diving related courses and advise graduate students, all while running the research diving program and supporting specialty research diving.

VERTEBRATE ECOLOGY

This has been a busy year for the vertebrate ecology lab with two students completing their theses (Angela and Marilyn), the addition of 2 graduate students and 3 interns, and the continuation and initiation of several research projects. In May Dr. Gitte McDonald and new student, Heather, traveled to Florida to participate in the annual Sarasota Bay Dolphin Health assessments. During the assessments they tested out a prototype heart rate data logger that can be deployed on wild cetaceans to help us understand how they manage oxygen while diving. Gitte also traveled to Denmark this summer to continue her research on harbor porpoise energetics and diving physiology in collaboration with Aarhus University. This fall the lab started a collaboration with the Costa Lab at UC Santa Cruz to assist with the long term research program studying the ecology of northern elephant seals. Graduate students Heather and Mason, interns Jenni and Sharon, and Gitte have started going to Año Nuevo State Reserve to collect tag resight data which is essential data for life history studies. The students are also receiving training so they will be able to help with data logger and satellite tag deployments and recoveries during the breeding season early next year.

Additionally, this fall, Dr. Alison Stimpert and Gitte received a research award from the Monterey Bay Chapter of the American Cetacean Society. This money will be used to initiate a

photo identification program of Risso's dolphins in the bay allowing us to address questions on whether these animals are resident or transient and investigate social structure. Gitte also was a co-PI on two small research grants: "Monitoring central California pinniped colonies using unmanned aerial vehicles" from the Packard endowment through UC Santa Cruz and "Coccidioidomycosis in rescued marine mammals along California's coast" from the CSU COAST program. In collaboration with the stranding network at UC Santa Cruz, Dr. Jim Harvey and Gitte were awarded a John H. Prescott Marine Mammal Rescue Assistance grant to help maintain the high level of stranding response and data collection that the Monterey County Marine Mammal Stranding Network provides. Gitte has also given presentations to the Monterey Bay Chapter of the American Cetacean Society and the Biology Department at San Jose State University about her research on diving physiology of marine mammals.

The students have been busy working on their theses and coursework. Keith is currently conducting molecular assays to finish up data collection in time to defend in spring 2016. He was awarded a Sally Casanova Pre-doctoral fellowship, which provides support to attend conferences and visit doctoral granting institutions. Jackie helped out with a variety of field activities this year including studies on sea otters in Elkhorn slough, mist nesting sea birds on Año Nuevo Island, and helping with elephant seal research. This fall she started working as the BeachCOMBER project manager. She is currently analyzing data and writing her thesis for a defense in spring 2016. Stephanie is currently working on her proposal while continuing to supervise a long-term seabird research effort at Castle Rock National Wildlife Refuge during 2015 in conjunction with Humboldt State University. Additionally, as part of the North Coast Marine Protected Area Baseline Program, she assisted in efforts to assess trends in the abundance of seabirds nesting at Castle Rock over the last two decades by counting seabirds present in aerial photographs of this colony. Heather and Mason started in the graduate program this fall and are busy with course work and developing their research projects. Mason recently began to assume more responsibilities with the Marine Mammal Stranding Network for Monterey County, which is run by our lab. He will be replacing Keith as the stranding coordinator over the next few months. Jenni and Sharon have been busy helping Keith with sample processing, in addition to helping out with the stranding program.

This December the Vertebrate Ecology Lab will be well represented at the 21st Biennial Conference on the Biology of Marine Mammals in San Francisco with a talk by Alison and posters by Keith, Jackie and Gitte. In association with the conference, Alison and Gitte are co-hosting a workshop "Career-Life Balance and how to make a successful career in marine mammal science". The lab has also had several publications accepted this fall including papers on fin whale calling (Alison Stimpert), carcass recovery rates for coastal bottlenose dolphins (Jim Harvey and Keith Hernandez, co-authors), and failure of satellite tags deployed on emperor penguins (Gitte McDonald, co-author).

Research Groups

Antarctic Marine Living Resources

During AY14-15, Dr. Valerie Loeb continued her research on micro-algal blooms in the Southern Ocean and Antarctica. She submitted a collaborative grant proposal to conduct field research from 2015-2016 on zooplankton by gathering physical and environmental samples across the Drake Passage using satellite-derived information, at-sea microscope based determinations and geo-spatial modelling to develop potential capability for predicting the occurrence of massive algal blooms in that region. She also continued her work with Acoustic Doppler Current Profiling. Dr. Loeb completed the first field season in Fall 2014 in the NSF DPP funded EAGER grant "Pilot study: addition of biological sampling to Drake Passage Transits of the 'L.M. Gould'".

Benthic Ecology

Dr. Stacy Kim and Dr. John Oliver, Research Faculty

Dr. Stacy Kim's research took a radical setback in AY14-15 when the government shut down, cancelling her entire research field season. Dr. Kim was slated to conduct research for four months at McMurdo Station, Antarctica. One project, funded by NASA, was to develop an autonomous underwater vehicle and test it under a permanent ice shelf to understand the structure of an ice shelf with an ultimate objective to develop a vehicle for exploring ice covered seas on other planetary bodies; a project which would have surely resulted in valuable data given recent discoveries by NASA of the MARS landscape. The second project, funded by the National Science Foundation (NSF), would have been a study of food webs ranging from phytoplankton to krill and fishes, to penguins, seals and whales to understand the influence that top predators have in this Antarctic system.

Fisheries & Conservation Biology

Dr. Rick Starr, Research Faculty

AY14-15 saw Dr. Rick Starr approach his eighth consecutive year monitoring central California MPS's and he will be modeling the results to see if the data can be used in "data-limited" fishery models to better manage nearshore fisheries. Dr. Starr also continued studying the Rockfish Conservation Areas, broad depth-based closures that have been in place for 11 years, but not yet evaluated. One project involves reproducing a study that occurred in the 1990s by working with anglers to estimate changes in density and sizes of captured fishes. The second project involves the development and use of a stereo-video camera system to conduct *in situ* surveys of the closures and to work with commercial fishermen to develop ways to target healthy stocks of fish while avoiding overfished species.

Environmental Biotechnology Laboratory

During AY14-15, Dr. Smith spent a substantial portion of the year traveling to field sites in support of the Alliance for Coastal Technologies (ACT) conducting field verification trials in the Chesapeake Bay and Lake Michigan shoreline. He also participated in a Verification Protocol Workshop where he designed laboratory and long-term field deployments for the newest generation of sensors. He and his team also went on cruises to the San Pedro Shelf to catch an upwelling driven algal bloom and spent six days sampling toxic algal blooms in the Monterey Bay. Later in the AY, Dr. Smith used the MLML's new Aquaculture Center to grow experiments of offshore water samples to look at algal growth requirements.

Pacific Shark Research Center

Dr. David Ebert, Research Faculty

In AY14-15 Dr. Ebert and his students conducted field research and collaborated with colleagues on projects in North America, Argentina, Australia, Brazil, Canada, Chile, Ecuador, France, Germany, Italy, Japan, Mauritius, New Zealand, Seychelles, South Africa and Taiwan. Their research was the subject of much media attention including episodes of the Discovery Channel's Shark Week, the program Shark After Dark, and programs being produced by the British Broadcasting Corporation to air in 2015.

Assistant to the Director

Kathleen Donahue joined the staff at Moss Landing Marine Laboratories in June 2015 when Jane Fusek retired. Kathleen has 25 years of experience supporting marine science research, education and operations in the Monterey Bay area. She received her BA in Film/Theater Arts from UC Santa Cruz and her MA in Education from Chapman University Kathleen has worked for MBARI, the *PISCO* Project at UC Santa Cruz's Long Marine Lab, the USGS Pacific Science Center and was on the Faculty at the Naval Postgraduate School. Kathleen is excited to be back at a marine lab and to contributing to MLML's continued success and future!

Environmental Health and Safety

Jocelyn Douglas - MLML Environmental Health and Safety Officer

- Recently attended the Pacific Radiation Safety Officers meeting at UCLA, connecting with other RSOs from California to discuss the latest expertise in ionizing radiation training, safety, monitoring and regulatory compliance.
- Appointed to third 4-year term as Safety Officer on the SJSU IACUC.
- Currently working with SJSU's Emergency Coordinator to update our MLML Alert System to review and update our emergency response plans for active shooter response, disaster preparation and operations.

MLML State Budget FY 14/15 & FY 15/16 Proposed

	<u>FY 14/15</u>	<u>Actuals as of</u>	<u>FY 15/16</u>	<u>Actuals as of</u>	
	<u>Budget</u>	<u>6/30/2015</u>	<u>Budget</u>	<u>10/31/2015</u>	¹⁰
REVENUE					
Salary	1,748,802	1,757,489	1,658,080	1,658,080	
Benefits	815,370	836,639	815,370	330,705	
OE&E	452,096	452,096	407,648	407,648	⁹
Utilities	288,640	264,839	288,640	75,396	
² Salary Recovery / Reimbursement	230,323	274,702	25,374	13,022	¹²
Visiting Scientist Support	21,425	21,429	21,425	-	
Other Reimbursement/Support	12,300	4,709	12,300	1,876	
CSUMB Contribution	50,000	50,000	50,000	-	
Prior Year Balance Forward	20,756	20,756	178,912	178,912	
¹ Roll-Forward Encumbrances	83,935	83,935	85,387	85,387	
TOTAL REVENUE	\$ 3,723,647	\$ 3,766,592	\$ 3,543,135	\$ 2,751,026	
SALARIES (Salary \$)					
³ Faculty	693,449	716,802	806,325	339,626	
⁴ Staff	910,308	940,808	820,175	324,525	
⁵ Temporary Faculty	102,048	65,712	27,322	28,668	
SALARIES (OE&E)					
⁶ Visiting Scientist	30,000	30,000	30,000	7,515	
⁷ Graduate Assistants	63,700	54,588	63,700	19,294	
⁸ Student Assistants	81,600	86,766	105,000	45,345	
BENEFITS	764,222	834,600	815,370	330,705	
TOTAL SALARIES & BENEFITS	\$ 2,645,327	\$ 2,729,275	\$ 2,667,892	\$ 1,095,677	
OPERATING EXPENSES					
<i>ADMINISTRATION</i>					
Taxes / Liability Premiums	1,400	1,415	1,400	-	
Office Supplies	9,350	5,426	9,350	864	
Copiers & Maintenance	4,840	3,744	4,840	4,095	
Furniture/Equipment	7,900	5,810	2,000	3,400	
Postage / Postage Meter Rental	2,000	2,713	2,700	204	
Telecommunications	6,800	7,266	4,800	2,600	
Memberships	4,600	4,460	4,600	2,700	
Faculty / Staff Recruitment	6,000	13,524	3,000	2,183	
Startup Funds	57,000	54,838	32,534	5,189	
Travel / Training	4,000	-	4,000	2,497	
Miscellaneous	1,500	2,355	1,500	237	
Reimbursable Grant/Award Exp.	-	1,145	-	-	
Roll-Forward Expenses	10,143	10,143	48,439	48,439	¹¹
TOTAL ADMINISTRATIVE EXPENSES	\$ 115,533	\$ 112,838	\$ 119,163	\$ 72,409	
<i>INSTRUCTIONAL SUPPLIES</i>					
Equipment	7,000	8,578	7,000	45	
Aquarium Room Refresh	1,000	236	1,000	-	
Class Materials & Supplies	8,000	12,191	8,000	2,755	
Baja Course	-	534	5,000	-	
Oceanographic Instrumentation	3,000	532	3,000	271	
Molecular Ecology	5,000	5,497	-	212	
Miscellaneous	1,000	-	1,000	202	
Roll-Forward Expenses	10,838	10,838	9,325	9,325	¹¹
TOTAL INSTRUCTIONAL SUPPLIES	\$ 35,838	\$ 38,406	\$ 34,325	\$ 12,810	

<i>MARINE SCIENCE DIVING</i>					
	Supplies & Repairs	10,000	10,458	10,000	5,563
	Roll-Forward Expenses	6,181	6,181		
	TOTAL MAR. SCI. DIVING EXPENSES	\$ 16,181	\$ 16,639	\$ 10,000	\$ 5,563
<i>ENVIRONMENTAL HEALTH & SAFETY</i>					
	Supplies & Permitting	5,500	6,516	5,500	2,634
	Museum	1,000	2,013	1,000	1,003
	Roll-Forward Expenses	192	192		
	TOTAL EHS EXPENSES	\$ 6,692	\$ 8,721	\$ 6,500	\$ 3,637
<i>FACILITIES</i>					
	Janitorial Services & Supplies	33,000	34,646	33,000	11,648
	Landscaping / Restoration	2,400	3,613	5,040	840
	Vehicle Maintenance & Repair	7,000	9,520	7,000	1,091
	Gasoline Charges	12,000	12,695	12,000	1,803
	R/V Sheila B - Fuel & Upkeep	3,000	2,961	3,000	702
	Proposed Facility Projects	127,377	115,391	53,400	24,935
	Scheduled Maintenance & Repair	15,000	14,426	15,000	5,519
	General Supplies & Repairs	24,750	28,003	29,750	11,709
	Seawater System	21,000	16,049	21,000	8,860
	Roll-Forward Expenses	51,267	51,267 ¹¹	27,623	27,623 ¹¹
	TOTAL FACILITIES EXPENSES	\$ 296,794	\$ 288,570	\$ 206,813	\$ 94,729
<i>UTILITIES</i>					
	Electricity	204,112	197,198	204,112	95,274
	Gas	39,076	36,748	39,076	8,299
	Water	8,031	7,627	8,031	3,094
	Sewage	7,685	6,750	7,685	2,258
	Trash	29,736	16,515	29,736	6,137
	TOTAL UTILITY EXPENSES	\$ 288,640	\$ 264,839	\$ 288,640	\$ 115,062
<i>LIBRARY</i>					
	Books/ILL/Supplies	7,000	7,332	7,000	5,044
	Periodicals	92,220	89,627	92,220	8,253
	TOTAL LIBRARY EXPENSES	\$ 99,220	\$ 96,959	\$ 99,220	\$ 13,297
<i>NETWORK</i>					
	Hardware	17,000	13,679	17,000	7,067
	Software	16,300	20,636	16,300	21,394
	Roll-Forward Expenses	5,506	5,506 ¹¹		
	TOTAL NETWORK EXPENSES	\$ 38,806	\$ 39,820	\$ 33,300	\$ 28,462
TOTAL OPERATING EXPENSES		\$ 897,704	\$ 858,405	\$ 796,961	\$ 344,967
TOTAL EXPENSES		3,543,031	3,587,680	3,464,853	1,440,644
TOTAL REVENUE		3,723,647	3,766,592	3,543,135	2,751,026
CASH FLOW BALANCE		180,616	178,912	78,283	1,310,382
ADJUSTED BALANCE		\$ 180,616	\$ 178,912¹³	\$ 78,283	\$ 1,310,382

Notes:

- ¹ Open encumbrances from previous fiscal year are rolled forward into the next year's budget
- ² Reimbursements for AAS & Asst to Dir (Provost-funded through FY13/14, funding moved to 70000 in FY 14/15), and Ship's Captain (85% SJSURF)
- ³ Faculty = 9
- ⁴ Staff = 12
- ⁵ Temporary Faculty: FY14/15: Fall = 3, Spring = 2; FY14/15: Fall = 1
- ⁶ OE&E Salaries - MLML pays salaries and all benefits
- ⁷ Graduate Assistants: FY14/15: Fall = 6, Spring = 6; FY 15/16: Fall = 6
- ⁸ Student Assistants: FY 14/15: Summer = 10, Fall = 8, Spring = 7; FY 15/16: Summer = 7, Fall = 9
- ⁹ Includes State Support OE&E budget and \$50K from Provost
- ¹⁰ Actual expenses only, no blanket encumbrances
- ¹¹ Expenses on rolled encumbrances from the previous fiscal year
- ¹² Includes salary reimbursement from FY 13/14 not received until FY 14/15

FY 14/15 Projects		FY 15/16 Projects	
<u>Main Lab</u>		<u>Main Lab</u>	
Security Camera/DVR System		Security Camera/DVR System	6,300
Fan for Museum Hood	3,000	50th Anniversary project	10,000
HVAC fans in rm off library-reduce noise	1,000	Seminar room light modifications	
HVAC air handlers/exhaust fix	4,500	Seminar lights for video	
Wood Floor	1,955	Admin remodel	
Lab floors	1,600	Lab floors	1,600
Verizon boosters	1,250	Fence on North side of lab	
Dive truck	55,000	Dry Classroom remodel	20,000
Admin remodel	20,300	Replace wood deck?	
Admin carpet	2,272	Replace wood on walkway?	1,000
Lockdown	3,500	Path to Rubis, with lighting	1,500
Path to Rubis and lighting		LED lighting	
Faculty Chairs	5,500	Air handlers & Exhaust Fans /	
Think Tank remodel	6,000	Frequency Drives	10,000
Friends Office remodel	4,000	Camper shell for new Dive Truck	3,000
<u>Marine Ops</u>			
Cameras			
<u>Shore Lab</u>			
Paint Water Tank	800		
Add Water Meter	1,000		
Seawater Software System Upgrade			
Seawater second fix	15,700		
Cameras			
		TOTAL	\$ 53,400
TOTAL			
	\$ 127,377		

MLML Operating Budget: SJSU Research Foundation

Includes MLML Operating, Norte, Del Mar, Sandholdt, Firehouse and Shore Lab

REVENUE	FY 2014-2015	FY 2015-2016
	ACTUALS	ESTIMATED
Other Income	16,074	20,000
Rental Income (Del Mar, Sandholdt Center)	144,080	121,000
F&A Return <i>(Less 10% to PI's)</i>	470,060	508,210
Foundation Admin and Facility Support	202,459	189,015
Total Revenue	832,673	838,225
Less 10% of F&A Return to Reserve Account	<i>(87,006)</i>	<i>(50,821)</i>
Less 10% to Payment on Deficit Refinance	<i>(87,006)</i>	<i>(50,821)</i>
Operating Budget For Revenue	658,661	736,583

EXPENSES	FY 2014-2015	FY 2015-2016
	ACTUALS	ESTIMATED
Total Salaries, Wages and Benefits	409,768	425,978
Total Administrative Costs	37,074	26,920
Total Information Technology/Library	1,360	19,600
Total Supplies and Equipment	53,903	75,000
Total Services & Facility Costs	58,400	86,941
Total Diving Costs	1,865	5,000
Total Maintenance and Repairs	32,284	50,100
Small Boat Support	15,000	15,000
Total Operating Costs	609,654	704,539
End of Year Balance	49,007	32,044

RESERVE	FY 2014-2015	FY 2015-2016
	ACTUALS	ESTIMATED
Beginning Balance Reserve Account	369,947	559,404
Transfer to Reserve Acct from F&A	87,006	50,821
MLML Transfer to Reserves	200,000	-
Expenses	<i>(97,549)</i>	-
EOY Balance	559,404	610,225

REFINANCING ACCOUNT	FY 2014-15	FY 2015-16
	ACTUALS	ESTIMATED
Beginning Balance Reserve Account	<i>(3,133,000)</i>	<i>(3,045,994)</i>
Transfer to Reserve Acct from F&A	87,006	50,821
EOY Balance	<i>(3,045,994)</i>	<i>(2,995,173)</i>



Governing Board Meeting
4 December 2015

TOWER FOUNDATION

Friends of Moss Landing Marine Labs

AY 14-15
Friends of MLML
DONATIONS
\$400,000

- FMLML received \$400,000 in private donations, endowments and corporate contributions.
- They opened the MLML Boardwalk Trail which meanders around the MLML Main Lab for visitors to learn about the local ecology and history of those who inhabited these lands before us and of MLML.
- During AY 14-15, FMLML conducted over a dozen tours to local K-12 classes and groups and awarded scholarships to 16 students totaling \$23,440 in AY14-15.
- FMLML operates a store for MLML merchandise that earned **\$5,300 in AY14-15** which went directly to the students and facilities.
- FMLML also produced the *Wave* magazine which is published twice per year to highlight MLML research activity, student successes, and provide updates to our sponsors and donors.
- FMLML hosts eight seminars each year which are open and free to the public, inviting guest speakers to give talks on marine science topics of interest to the Monterey Bay community. An average of 200 people attended these talks last year.
- In AY14-15, FMLML coordinated 30 events in our Seminar Room for groups like the Monterey Bay Aquarium, NOAA, CA Fish and Wildlife, CSUMB, The Community Foundation of Monterey County and for non-profits like the Red Cross, North Monterey County Fire District and local school districts.



**MLML Governing Board Meeting
4 December 2015**

MINUTES

Governing Board Members Attendees:

Jim Harvey (MLML, Director)
James Lindholm (CSUMB, MLML Governing Board chair)
Marsha Moroh (CSUMB)
Ivano Aiello (MLML, Chair, Geological Oceanography)
Scott Hamilton (MLML, Ichthyology)
Nick Welschmeyer (MLML, Biological Oceanography)
Manny Gabet (SJSU)
Michael Parrish (SJSU)
Keith Bowman (San Francisco State)
Karina Nielsen (San Francisco State)
Michael Lee (CSU East Bay)
Mathieu Richard (CSU Fresno)
Patrick Kelly (CSU Stanislaus)

Additional Attendees:

Kathleen Donahue (MLML, Assistant to the Director)
Terra Eggink (MLML, Graduate Program Coordinator)
Gitte McDonald (MLML, Vertebrate Ecology)
Tom Connolly (MLML, Physical Oceanography)
Colleen Durkin (MLML, Research Faculty)
Jocelyn Douglas (MLML, Health & Safety Officer)
Jane Schuytema (MLML, SJSU State)
Jeff Arlt (MLML, IT department)
Corey Garza (CSUMB, MLML Visiting Scientist)
Kam Lam (SJSU Research Foundation)
Stephanie Flora (MOBY)
Jackson Winn (MLML Small Boats)

John Douglas (MLML Small Boats)
Jason Adelaars (MOBY, CCWG)
Justin Cordova (MLML student)
Alex Olson (MLML student)

Start time: 9:34am

Minutes: Heather Kramp (MLML, Student Assistant)

James Lindholm:

Motion to approve minutes from previous meeting; minutes approved.

Message from MLML Director:

Thanks to everyone for coming.

Summary of happenings at the lab - Personnel changes

Joan Parker (MLML Librarian) is retiring, the faculty recruitment is underway and candidates have visited MLML, MBARI and SJSU Dr. Tom Connolly is MLML's new physical oceanographer replacing Dr. Erika McPhee-Shaw. He is starting his first semester this fall, 2015 and Dr. Colleen Durkin is a new research faculty member in biological oceanography beginning the fall, 2015. Kathleen Donahue is the new Assistant to the Director and has been at MLML for 6 months now. Terra Eggink is MLML's new Graduate Program Coordinator, at MLML 4 months now. MLML is presently running a search for a new Marine Operations Manager to fill the gap left when the Pt. Sur was retired and the Marine Superintendent and staff were let go. MLML needs an additional permanent position in marine operations to fill in this gap and maintain the marine operations and small boats program. Paul Klepac, MLML's web manager, is retiring. The IT department may go through some restructuring as the IT department before a new individual is hired. Corey Garza, CSUMB, is MLML's current visiting scientist. Michael Lee, from CSU East Bay, will be MLML's Visiting Scientist during AY17-18.

Thanks to Marsha Moroh for her dedication to the Governing Board for the past 18 years.

MLML Graduate Program

Terra Eggink, MLML Graduate Program Coordinator provides comments

Statistics for 2015-2016 AY

There are currently 72 graduate students enrolled at MLML. This number is down from 85-90 graduate students, which, has been the average in the past. This may be attributed to changes in faculty over the past few years with older faculty leaving, not taking on students, and newer faculty joining MLML. Sixteen new students enrolled this AY. Enrollment has been steady over

the past few years. Seven students are graduating this fall. Graduation time at MLML is improving over past years. The average time for graduation is about four years. SJSU accounts for 39% of FTE students. CSUMB accounts for 58% of FTEs. Two current students are enrolled through SFSU. Fall 2014 was the last time a student from another consortium campus enrolled (CSU East Bay). On average, about 100 students apply to the MLML Master's program each year and roughly 25% of those applicants are accepted. MLML is offering nine this semester. Students are also competitive in obtaining funding from scholarships and they are listed in the Governing Board meeting packet.

2014-2015 MLML Annual Report

MLML was required to prepare an annual report per Executive Order 1103 issued by the CSU Chancellor's Office. The Chancellor's Office has been asking questions about multi-campus research groups associated with the CSU, especially those they are not familiar with. MLML produced an 82-page report that covered MLML activities between 2012 and 2015. The report covered MLML governance, the graduate program, accomplishments, finances and included a draft Strategic Plan. The whole report is available on the Governing Board shared drive for members to view. The Chancellor's Office has received and reviewed the report. Feedback to date has asked what MLML's budget is based on. The report includes a draft MLML Strategic Plan that Dr. Harvey has been working on. Though the plan was included in the report, it is still a work in progress and has not been vetted. There may be a review of the program required by the Chancellor's Office every 5 years, which, may or may not include an annual report similar to the one drafted.

MLML Aquaculture Facility update

A number of years ago, Dr. Kenneth Coale (MLML) received a Packard grant to rebuild MLML after the earthquake. Some of those funds were used to build the current Aquaculture Facility where the previous shore lab was located. The vision of the Aquaculture Facility is for it to be used as a facility for the entire CSU, not just MLML - a CSU Center for Aquaculture. The concept for the Aquaculture Center is for its capabilities and mission to broad and incorporate education, research and policy. MLML acquired additional funds from CSU COAST and California Sea Grant to further develop the facility.

In January 2016, representatives from all CSU campuses have been invited to a two day event to discuss supporting this aquaculture facility concept. Day one of the meeting will be with CSU campus representatives only, and day two will include stakeholders, politicians, policy makers, agencies and a variety of people from the Aquaculture industry. The event will focus on discussions between CSU reps, stakeholders, policymakers and industry groups. Potential classes being considered would include, initially, MLML faculty and then CSU faculty curriculum resulting in certification or potentially a MS degree. The research portion would include developing skills and collaborating with industry groups. The policy position would focus on sustainability and best practices, environmental issues, as well as education outreach. This focus will consider marine and freshwater aquaculture, aquaponics, etc.

MLML 2016 Open House

The students have tentatively scheduled the Open House for April 30th and May 1st, 2016. The Open House theme will be MLML's 50th Anniversary.

MLML 50th Anniversary

In 2016 MLML will be 50 years old. A large event is planned for August of 2016. On Friday evening there will be an exclusive party for the Chancellor, Governor, CSU Presidents, MLML Governing Board and potential high level donors. Saturday will have a mini-Open House for alumni, former and current faculty and staff to attend. On Saturday evening there will be a large party in the field at the bottom of the hill. MLML has been producing a 50th Anniversary blog on the MLML website (front page). The weekly blog posts are fun and insightful into the history of the labs. Governing Board members are encouraged to read them.

SJSU-CSUMB discussion

Discussion history between the CSU Chancellor and SJSU and CSUMB Presidents

In fall 2014 CSUMB's President, Eduardo Ochoa, and SJSU's President, Mo Qayoumi, interacted with the CSU Chancellor behind closed doors to discuss MLML. The understanding is that SJSU had concerns about operating costs of MLML and CSUMB would like to utilize MLML facilities. CSUMB President Ochoa declared his desire to take over administration of MLML. [CSUMB1] MLML's operating cost is about \$3.2 million per year. About \$1.6 mil is funded through SJSU and \$1.6 mil comes directly from the CSU. SJSU endures a large financial responsibility to run MLML compared with other consortium campuses.

Dean Parrish confirmed that funding for SJSU's new Science Building has been completely decoupled from the MLML administrative campus discussion.

CSUMB has a large number of students enrolled at MLML and they contribute \$50k per year, although between 1995 and 2012 they contributed \$100k per year. After the Chancellor and the Presidents' meeting, the Chancellor asked the Presidents to meet with the Provosts, Deans and Financial Officers of each campus, the Director of MLML, and others to come up with a plan for the future of MLML. Jim Harvey asked if the consortium would be involved and the answer back was no. The expectation was to develop a report for the Chancellor's Office, which, was never completed. A financial report was generated, though, on the historical funding of MLML per CSUMB's request.

In summer 2015, the Presidents met again with the Chancellor behind closed doors. SJSU President Qayoumi announced his resignation. It is believed a decision was made that MLML would administratively move to CSUMB in that meeting; however, that is unclear now. Discussion with the SJSU Provost is that any move or next steps are now on hold, perhaps indefinitely, until the SJSU President position is resolved. There is a general consensus that the

new SJSU President will not be addressing this issue for some time as they have many other issues at SJSU to resolve first.

Congressman Sam Farr has told the Chancellor and publicly declared that he wants MLML to move to CSUMB before he leaves office. Dean Moroh stated that President Ochoa is ready with the strong case for the benefits of the geographic location of CSUMB to MLML and has regularly stated that Marine Science is the start of CSUMB. Further, CSUMB has outgrown its Marine Science space and will need berth for a research vessel.

Dr. Harvey described how this issue makes strategic planning a challenge given he cannot think ahead without knowing who the parent campus will be and what resources are available or could be available depending on which campus will administer MLML..

MLML and Governing Board involvement in an administrative change decision

The MLML Governing Board has the authority per the MLML Rules of Operation (1st paragraph) to make recommendations to the Chancellor's Office for changing administration of MLML to a different CSU campus. However, the Governing Board has not been directly included in discussions of moving MLML administratively. *Note: SJSU has always been the operating administrator of MLML since its foundation.* Dr. Harvey finds it frustrating that all of the consortium campuses are not part of the discussion about what happens administratively with CSUMB. SJSU finds it frustrating as well but believes any future decision regarding MLML is likely to happen once the SJSU presidency has been resolved. There is a general dismay that the MLML Governing Board authority and Rules of Operation have been ignored and usurped by the higher authority of the Chancellor and Presidents. Jim Harvey reported that he asked if President Qayoumi knew whether the other consortium campuses should be included in the discussion and the President responded no. President Ochoa seems to believe the process is moving along. CSUMB has outgrown its campus resources and would benefit from use of MLML. The MLML Faculty, in general, is all on board with an administrative move to CSUMB.

There needs to be a process that involves all stakeholders, not just the Presidents but the Department Chairs and Deans as well. There needs to be a statement about the pros and cons and a funding model needs to be rendered and considered. Discussion proceeded about a letter that should be sent to serve as a reminder to the Chancellor that there are seven campuses represented by a Governing Board at MLML who are all stakeholders in the decisions concerning MLML's parent campus and are granted authority to vote on a decision according to the MLML By laws and Rules of Operation. The letter should request that there be an informed plan that is advantageous to MLML, open exploration of the issues, and that the process be open and transparent.

Jim requested that all Governing Board members return to their CSU campus and be a conduit by sharing this information because that is the only way a consortium like this works.

Motion: The Governing Board will draft a letter to the Chancellor requesting a timely resolution. The letter should articulate a desire for involvement in the process per the MLML By Laws and Rules of Operation that gives the MLML Governing Board authority to vote on a matter such as this and for more information. The letter will request that there be an open and transparent process to make the decision, reiterate that all seven campuses should be involved, and to express general feelings on the matter. In addition, the letter will include MLML faculty's general attitude and open interest on moving administratively to CSUMB depending on the terms and conditions. Jim Harvey, Ivano Aiello, and James Lindholm will meet to discuss the letter and then send it to the Board for review.

2014-2015 MLML budget review

The MLML budget has about \$3.5 million from the State. It includes a budget from the state provided through SJSU and an indirect budget from grants and contracts brought in by MLML to SJSU and then a percentage is returned to MLML.

State budget:

A large portion of this budget goes toward Faculty and staff salaries and benefits. A little money funds the visiting scientist. Each consortium member pays in \$4,400 which goes to funding the visiting scientist. CSUMB pays \$50,000 for additional use of MLML. This budget also encompasses faculty start ups, administration, instructional supplies, science diving program, health and safety, facilities, IT services, marine operations, utilities, and library services. Only half the library costs are represented here. MBARI funds the additional half (approximately \$100,000). Additional projects funded by this budget include remodeling of the "Think Tank" room at MLML into a smart classroom. For the 50th Anniversary, MLML is also producing a book which will utilize some of these funds.

Indirect budget from grants and activity:

All grant money awarded to MLML goes through the SJSU Research Foundation. MLML produces about one-third of the contracts and grant activity at SJSU (\$15-17 million). This money generates about \$500,000-600,000 in funds returned to MLML annually. This budget mainly funds salaries, including some IT department and facilities employees, at MLML as well as library, IT, and diving services and lab maintenance. In addition, 10% is returned to PIs, 10% is saved in a reserve to weather financially difficult years, and 10% is used to pay back a SJSU Research Foundation debt for the purchasing of some MLML properties.

Break for lunch: 12:10pm

Return: 12:45pm

Curriculum

Update on MLML's curriculum plan

MLML has been attempting to develop an integrated oceanography class with faculty from different oceanography labs and analytical skills. The class would ideally be a year long course

covering fall and spring semester. MLML has been developing this idea for a few years now; however, it has not reached fruition. Functionally, dividing course credit between faculty and other administrative issues have not been resolved. MLML is still pressing forward with this idea but it is back in initial development.

MLML courses on consortium campuses

Distance has always been a factor impacting consortium campus students' ability to attend MLML classes. To circumnavigate distance issues, MLML is considering online classes. MLML would like to know if there is interest in online classes from MLML and what is needed or what process is the best for setting up online classes. CSUMB and SJSU have well developed online learning components/classes that MLML could utilize.

Meeting adjourned: 1:38pm