

June 20, 1983

MEMO TO: Marine Science Commission

FROM: *Stamm* J. Weber, Director, Marine Science Center

SUBJECT: Summary of Academic Year 1982-83 at OSU Marine Science Center

BUILDINGS/PHYSICAL PLANT

We are continuing to work with the OSU Foundation to obtain funding for additional dormitories since existing units are completely filled with students and we are unable to accommodate visiting scientists during the summer.

Repairs to damage of the causeway leading to our small boat dock, the results of severe winter storms, cost about \$4.2K.

Analytical laboratory facilities in the State and Federal buildings were improved this year by addition of five new hoods and two island counters.

EDUCATION PROGRAM

Our winter and spring course offerings have remained approximately the same as in 1981 and 1982; they continue to receive consistent commendation from the students.

Our summer program in 1982 was the largest ever; the fisheries and aquaculture courses were particularly well received. The Marine Biology course is having difficulty in obtaining sufficient summer students. Oregon State University is still committed to keeping a classical marine biology program available during the summer, but with the break-even mandate from the legislature, this task becomes increasingly difficult. We estimate that the cost of our 15-hour Marine Biology course would require some 40 students to break-even by itself; on the other hand, the faculty feel that the course cannot be taught adequately with more than 16 students. The Marine Science Center is evaluating this problem with Summer School and university administration.

Perhaps most significant this past year is an effort between Oregon Institute of Marine Biology and the Marine Science Center to collaborate in a joint program allowing students who wish to spend several terms on the Oregon coast to do so by taking a term at OIMB and then at

the MSC, or vice versa (see attached flier). Although we feel that it may take some time to develop this collaboration, both Centers are very optimistic about the effort, which should strengthen not only our educational programs but also the ties between cooperating faculty and students.

Summaries of student enrollment numbers are in the "Statistics" section.

FACULTY CHANGES

Professor Wilbur Breese has retired, maintaining a 600-hour appointment for Extension work, and teaching during the winter and summer terms.

Dr. David Barker has joined Dr. George Mpitsos' program which is supported through an Air Force contract. Dr. Barker has received a fixed-term appointment in the Department of Biochemistry/Biophysics. Dr. Mpitsos has now received appointment in the School of Pharmacy at Oregon State University on a fixed-term basis.

Dr. Gary Taghon, Assistant Professor in Oceanography, has joined us for oceanographic work in benthic ecology.

Dr. Jonathan Garber, Assistant Professor in Oceanography, also joins our staff as an oceanographic benthic ecologist.

Mr. Bori Olla is on an IPA from the National Marine Fisheries Service lab in Seattle, WA. His appointment is through the School of Oceanography.

Dr. Edward Kolbe, Associate Professor of Agriculture Engineering is re-joining his department on the main campus.

Dr. George Boehlert, Assistant Professor of Oceanography has accepted a position with the National Marine Fisheries Service in Hawaii.

Dr. William Percy is planning to join the MSC faculty in the late summer of 1983. He joins us as Director of the Cooperative Institute for Marine Resource Studies. The Center feels that this is, indeed, a very significant addition.

FACULTY PUBLICATIONS

A list of Center investigator publications is presented on page 7. These publications are for the academic year 1982-83

AQUARIUM/MUSEUM

Public appreciation of the quality of our Aquarium/Museum has continued to improve, due to a steady effort to update and maintain the quality of the displays. This past year, we completely re-landscaped our courtyard and received from the Gannett Foundation \$5,000 to construct a panel titled "Coastal Archaeology". The emphasis of this panel will be a description of the coastal Indian's use of the Seal Rock site; it

will be completed by early August, 1983. The MSC has applied for a grant to the Institute of Museum Services for \$29,200 to fund further renovation, and the articulation of a Minke whale, which will be displayed in the courtyard. This grant would also provide, on a trial basis, a year-round Internship to support work with the public in the museum area, tidal pool areas and nature walks. There were 337,000 visitors to the museum/aquarium during the past year.

FUTURE PLANS

Limited dormitory space is becoming an increasingly critical factor in MSC development. This spring we have spent considerable effort in attempts to find housing for six scientific investigators who will be at the Center for one to 15 months. Short-term guests are a particular problem because their visits usually occur at the height of the tourist season. We have physical plans for housing additions and now must find funding for them, probably through the OSU Foundation.

DONATIONS

We received \$50,000 from Mrs. Isabella Holt's estate as an endowment; it will generate about \$3,500/year for Center development.

We continue to receive limited funds from "Friends of the Aquarium" and general donations which are being put into an account in the OSU Foundation.

FINANCIAL STATEMENT

ESTIMATED FY83 INDIRECT EXPENSE GENERATION (000)

	<u>Expenditures</u>	<u>Indirect Expense</u>
<u>FEDERAL GRANTS & CONTRACTS</u>		
NIH	90	21
NSF	165	31
DOE	172	33
ONR	15	4
NOAA	580	4
OTHER FEDERAL	165	102
SHIP OPERATIONS (NSF, ONR, DOE)	<u>1,700</u>	<u>110</u>
	2,887	341
<u>COOPERATING AGENCIES</u>		
EPA	950	-0-
ODFW	<u>750</u>	<u>-0-</u>
	1,700	-0-
<u>STATE</u>		
Library	80	-0-
OSU Heath Ocean Instruction	26	-0-
MSC Research Administration	168	-0-
Sta Percy S G Vessel	25	-0-
Sta Heath S G Vessel	60	-0-
MSC Aquarium Museum	56	-0-
MSC Building Op & Main	375	-0-
Basic Extension Program	30	-0-
Coop Ext Svc	12	-0-
	832	-0-
<u>HOUSING</u>	<u>15</u>	<u>-0-</u>
TOTAL	5,434	341
<u>TOTALS BY SPONSORS</u>		
		%
FEDERAL GRANTS AND CONTRACTS	2,887	53
COOPERATING AGENCIES	1,700	32
STATE	832	15
HOUSING	<u>15</u>	<u>--</u>
TOTAL	5,434	100

STATISTICSSTUDENT ENROLLMENT

<u>Winter</u> <u>1983</u>		<u>1982</u>	<u>1983</u>
FW 455	Fish Culture	14	13
FW 466	Invertebrate Fisheries	12	9
FW 494	Diseases and Parasites of Marine Fishes and Invertebrates	8	10
FW 495	Molluscan Aquaculture	7	13
FW 320	Population Dynamics	9	N/A
FW 407C	Seminar	9	9
FW 555	Fish Genetics	7	N/A
FW 473X	Fish Toxicology	N/A	6
	Total Student Enrollment	20	19
<u>Spring</u>		<u>1982</u>	<u>1983</u>
Bi 450X,451X	Marine Biology	15	15
Oc 546X	Early Life History of Marine Fishes	11	N/A
Oc 507E	Behavior Ecology of Marine Fishes	N/A	9
	Total Student Enrollment	26	24
<u>Summer</u> <u>1983*</u>		<u>1982</u>	
AE 450X	Agricultural Engineering	15	13
FW 455	Fish Culture	18	8
FW 495	Molluscan Aquaculture	20	16
FW 507m	Seminar	10	8
FW 571	Functional Ichthyology	9	N/A
Bi 450, 451	Marine Biology	8	8
AREc 408	Marine Economics	N/A	12
FW 494X	Diseases and Parasites of Marine Fishes and Invertebrates	N/A	7
	Total Student Enrollment	39	27
	Resident Graduate Students (current)	10	20

* As of June 16, 1983

ACADEMIC INSTITUTIONS UTILIZING THE
MSC

1982

Weber State College	9
Chemeketa Community College	16
Oregon State University	75
Whitman College	15
OSU Elderhostel	43
The College of Idaho	14
Audobon Society of Portland	16
Utah State University	12

AQUARIUM/MUSEUM VISITORS

January 1, 1982 - December 31, 1982 = 336,925

263 different school groups have utilized the Extension Education Programs for a total of 10,706 participants.

Visitors since opening: 5,130,524

PUBLICATIONS
1982-83

BEASLEY, T. M.

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Boehlert, George W. and Mary M. Yoklavich. 1983. Effects of temperature, ration, and fish size on growth of juvenile black rockfish, *Sebastes melanops*. *Env. Biol. Fish.* 8:1, pp. 17-28.

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Johnson, Gary E. and J. J. Gonor. 1982. The tidal exchange of Callinassa californiensis (Crustacea, Decapoda) larvae between the ocean and the Salmon River estuary, Oregon. Estuarine, Coastal and Shelf Science (1982) 14:501-516.

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BORI OLLA

Steiner, W. W., J. J. Luczkovich, and B. L. Olla. (1982). Activity, shelter usage, growth and recruitment of juvenile red hake Urophycis chuss (Walbaum). Mar. Ecol., Prog. Ser. 7:125-135.

Regan, J. D., W. L. Carrier, C. Samet, and B. L. Olla. (1982). Photo-reactivation in two closely related marine fishes having different longevities. Mechanisms of aging and development 18:59-66.

Olla, B. L., A. J. Bejda, and W. H. Pearson. The effects of oil-contaminated sediment on the burrowing of hard clams, Mercenaria mercenaria. In Press, Mar. Environ. Res.

Pearson, W. H., D. L. Woodruff, P. C. Sugarman, and B. L. Olla. The burrowing behavior of the sand lance, Ammodytes hexapterus: Effects of oil-contaminated sediment. In Press, Mar. Environ. Res.

Regan, J. D., R. D. Snyder, A. A. Francis, and B. L. Olla. Excision repair of ultraviolet- and chemically- induced damage in the DNA of fibroblasts derived from two closely related species of marine fishes. In Press, Aquatic Tox.

Olla, B. L., and A. L. Studholme. Using behavior to measure pollutant effects in marine organisms. In Press. 7th Symposium on Aquatic Toxicology, Amer. Soc. Tect. and Math., Milwaukee, WI (Abstract).

Luczkovich, J. J. and B. L. Olla. Feeding behavior prey consumption and growth of juvenile red hake, Urophycis chuss (Gadidae). In Press, Trans. Am. Fish. Soc.

Grover, J. J. and B. L. Olla. The role of the Rhinoceros Auklet (Cerorhinca monocerata) in mixed-species feeding assemblages of seabirds in the Strait of Juan de Fuca, Washington. In Press, The Auk.

JONATHAN M. SHENKER

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JOSEPH F. SIEBENALLER

Siebenaller, Joseph F., George N. Somero, and Richard L. Haedrich. 1982. Biochemical characteristics of macrourid fishes differing in their depths of distribution. Biol. Bull. 163:240-249.

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JAMES R. WINTON

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- Wertheimer, A. C. and J. R. Winton. (1982). Differences in susceptibility among three stocks of chinook salmon, Oncorhynchus tshawytscha, to two isolates of infectious hematopoietic necrosis virus. NOAA Technical Memorandum NMFS-F/NWC-22.
- Winton, J. R., C. N. Lannan and J. L. Fryer. Further characterization of a new reovirus of poikilothermic vertebrates. In Double-stranded RNA viruses. Elsevier Science Publishing Company (In Press).
- Winton, J. R., J. S. Rohovec, and J. L. Fryer. Bacterial and viral diseases of cultured salmonids in the Pacific Northwest. In Molecular and applied approaches to the study of bacterial and viral diseases of fish. Edited by J. Crosa. Washington Sea Grant, Seattle (In Press).