OIMB

Studying by the sea

It's not the typical classroom, the sea. But like the endless horizon, opportunities for creative study have no limits.

University science students are lucky. They don't have to experience the typical four-year college curriculum or review ocean life from textbooks. Instead, they can complement course study firsthand at the University of Oregon Institute of Marine Biology.

Students from all over gather in Charleston each fall, spring or summer term. They aren't necessarily biology majors, but they share a desire to learn about marine life, to experience the techniques of field biologists, to live in an area well suited as a natural lab with nearby seaports and large fishing industries.

Students don't describe their stay like a vacation. While they could be "nightlighting" on midnight field trips to examine the dark ocean-world, alive and teeming with starfish, barnacles and marine life, they could also be up at sunrise, wandering around chilling tidal pools in hip boots, making their way over jagged rocks and slippery seaweed to catch the lowest tide.

They take courses in invertebrate zoology, physiology, coastal biology, biology of fishes, marine birds and mammals or biological illustration. Many courses require individual research projects and in-depth papers, and some students undertake more specialized work.

Every Friday afternoon in the "boathouse," which was converted into a large auditorium overlooking the bay, visiting professors give seminars on current topics in science.

Paul Rudy is the director of OIMB. He likes the intimacy within the large University system, the feeling of small places, the rugged, coastal architecture that characterizes the Oregon Institute of Marine Biology. And he likes to make students a part of the educational system.

"Mainly we want to get as many undergraduates as possible doing research," Rudy says. "This is something the main campus can't do like we do here . . . emphasizing the small classes and individual attention."

Rudy describes the excitement of research (into) field biology, whole animals and natural history: "People really get starved for it."

He also says it is not uncommon for one or two professors to go out on their own time to help students get started on research projects.

One student, Larry Dangoot, prefers the program to to the regular campus because of "unique" opportunities the institute offers.

"A 24-hour lab is a rare opportunity," he says, citing the institute's "high energy" level, group cohesiveness and individual experiences as reasons students extend their stay.

Dangoot, who first enrolled at the institute during the summer of 1971, has been a full-time student there since June 1975. He is currently working on his PhD and plans to remain at OIMB another year.

He studies the structure and function of invertebrate respiratory pigments under a research grant by the National Science Foundation. He is presently working on his third article for publication.

Another student of respiratory proteins has the institute ship him animals to his college in Virginia.

Greg Vogel, a masters candidate at the College of William and Mary, says he decided to research a species of tube worm, "something not locally available to me (in Virginia). The advantages are that I can come to the West Coast to collect animals."

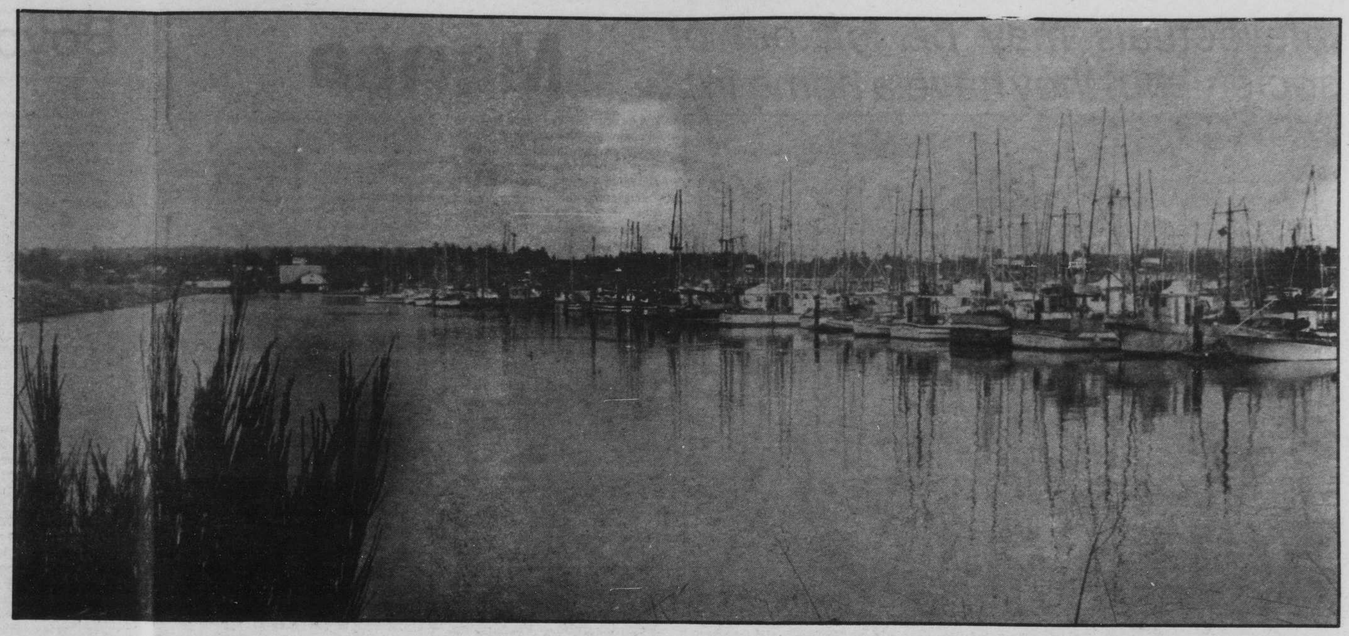
A student new to the institute this fall, Martha Onasch, is taking two regular classes in addition to an independent project studying harbor seals with another student, Mike Graybill. She says she wanted to study an animal she wasn't familiar with, so she chose the seal to observe and make a population census.

An unusual feature of the study involves a possible misconception she would like to clear up.

"Fishermen say the seals are eating the salmon," says Onasch, "so I'm studying the feces to find out what they're eating."

The process sounds simple. Since the earbones of fish don't change form within the seal body, she says, upon excretion earbones can be extracted and studied. Thus, by comparing the earbones of salmon and any earbones in seal feces, Onasch will determine whether the fishermen are correct in their accusations.

Stories by Cheri O'Neil
Photos by Bob Matthews



Director foresees building additions

Near a small fishing village southwest of Coos Bay, Ore., lies 109 acres of University property that has been dedicated to marine programs since 1925.

Twenty buildings constructed by the Civilian Conservation Corps are located next to the Charleston Boat Basin, eight miles from Coos Bay and eight from North Bend. Eighty-five of the acres are designated primitive wildlife area where native vegetation and animal habitat have been preserved. The thickly wooded terrain drops off quickly with 100-foot cliffs that plunge into the sea.

Director Paul Rudy sees construction as the major current need of the Oregon Institute of Marine Biology.

The long-range building schedule just approved includes a new shop, while converting the old shop into a student library-reading area and new dorms, while transforming the old dorms into lab facilities.

"We'll do one and see what our needs are," Rudy adds.

He hopes to to replace existing facilities over the next 10 years.

The institute presently has four teaching labs, a dining room, kitchen, auditorium, living quarters in the form of dormitories and barracks, instructional space for 100 students, housing for faculty families and visiting professors.

Costs are $45 a week for room and board, while tuition, fees and financial aid are the same as at the University. Some student employment is available.

The station has three small motor boats, a dory for working inside the bay, a 25-foot survey launch and a rental boat for plankton sampling.

Rudy says this fall term is designed primarily for upper-division biology majors and graduate students from Oregon colleges and universities. There are usually 30 students in the fall, 40-45 in the spring and 80-125 summer terms, according to Rudy.

"I've seen the institute grow in numbers every year," he says.

The institute's funds come from various sources: The state of Oregon provides a general operating budget that covers the salaries of two full-time professors, Bob Terwilliger and Rudy.

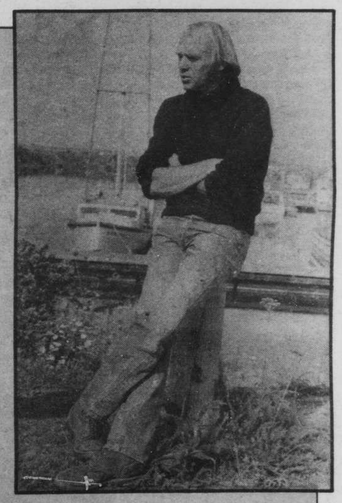
The University funds summer session programs and pays salaries for five professors and six teaching assistants. It also pays for boat rental, materials and supplies.

Two self-sustaining dormitory accounts from room-and-board charges pay for cook's wages and food.

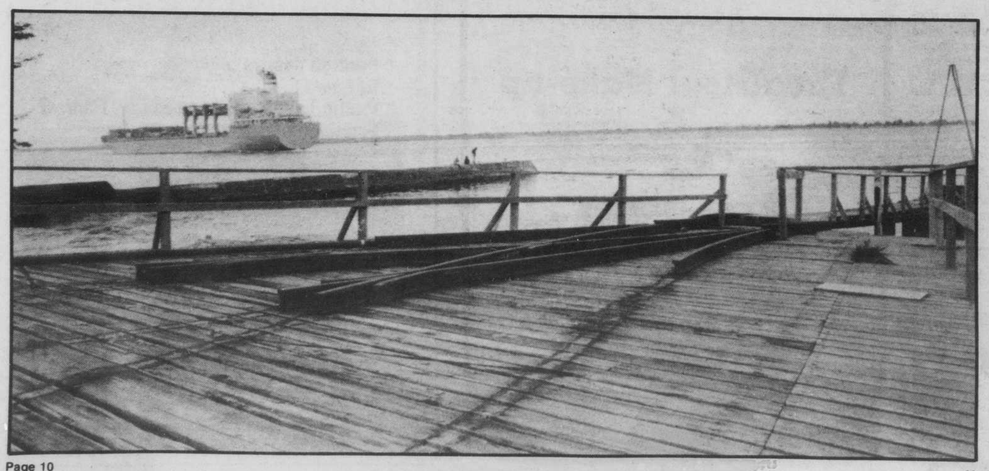
Finally, federal funds have assisted in construction and support research activities.

The Newport institute that serves Oregon State University differs from Charleston's because it deals more with deep-sea oceanography and receives more money, according to Rudy.

"It's (Newport) a large operation, but we consistently have many more students and get more teaching done here."



Paul Rudy, at right, the director of the institute for 10 years, believes estuarine ecology has a lot to offer the University system. He says OIMB is "closer to real life."



Spring program combines disciplines

The institutes's spring term program, "People and the Oregon Coast," is open to all majors interested in "a multidisciplinary approach to human and environmental problems."

Director Paul Rudy believes the program "teaches why the disciplines are important," combining biology, economics, geography, landscape architecture and political science through research projects and varied course offerings.

"It's a great academic experience," says Bill Morgante, assistant program director. "But at the same time, it gets you in touch with the environment . . . and it's relaxing."

But "there's not that separation between work and play like at the University," he says. "It all blends together."

"We're closer to real life here," says Rudy, "and students have an impact on the society around them."

Students create their own programs, and research credits are combined with course work.

Projects focus on social and environmental concerns, such as the preservation of coastal and estuarine ecosystems, analyses on the clearcutting controversy and political and economic pressures on the area's shipping, timber and fishing industries.

Ever since the South Slough of Coos Bay was designated as the first national estuarine research sanctuary in 1975, students have been interested in the area's productivity and its economic and environmental feasibility.

Rudy says the University played a "large part in the development" of the 4500 acres of wildlife sanctuary, and students have done much of its research.

"The opportunities are there to make it what you want, to seek out your own interests," says program director Colleen Burgh. She describes the experience as "learning by doing."

"Creativity is a large part," Burgh explains. "The program appeals to students who really want to learn about where they are and what's going on around them."

Projects vary from the "very liberal arts to the physical and social sciences," according to Burgh.

She says students present projects to the public at an "open house" each spring which is often attended by city council members, engineers and representatives from local agencies. Grants are issued for some students' projects, while local agencies sometimes purchase copies of student papers, she says.

Students are briefed on the local culture before they get to the area, says Morgante.

"We're looking for people who are not just going down there for a vacation," he adds. "You have to use your own initiative to get things done."

Students interested in the program should apply soon and plan their schedules for the year now, Burgh warns.

For more information about "People and the Oregon Coast," call Burgh or Morgante at 686-3798, or visit the program's new office in Suite 4, EMU.

Pat Bixler, at left, draws out a plankton tow net used in collecting species for his invertebrate zoology class.