

Caring for Creatures of the Deep

BY NANCY WEST

Scott Weber, V'97, is living his childhood dream. "Since I was very small, I always knew two things—I wanted to be a veterinarian and I wanted to keep fish," recalled Dr. Weber. As head veterinarian and research scientist at the New England Aquarium since 2001, he "keeps" more fish and other aquatic life than he ever imagined!

No two days are alike for Dr. Weber and his staff of nine, who respond to the veterinary needs of injured or ill aquatic animal patients in more than 650 very diverse species in a collection of more than 31,000 animals. Their patients range from fish with cancer to diseased invertebrates and coral to sea lions with cataracts. They also assist in the rescue and rehabilitation of stranded marine animals along the New England coast, primarily dolphins, whales, seals and sea turtles.

A unique caseload

In 2005, Dr. Weber and his colleagues cared for more than 230 new patients. They also conducted a large-scale quarantine of more than 475 fish from two collecting trips. "All animals entering the aquarium undergo a quarantine program, which is an essential element of preventive care," he explained.

Dr. Weber enjoys the diversity of his work. "When I arrive each day, I never know whether I'll be called into our medical center for emergency surgery or out to the beach to help rescue a stranded marine animal."

The aquarium experienced an unusually high incidence of strandings this winter due to the warmer-than-average weather in the northeastern United States. "This year, we've responded to more than 130 whales and dolphins that have stranded along Cape Cod," he noted. "We also see a lot of sea turtles who strand after being blown out of the warm Gulf Stream by Nor'Easter winter storms. Most of them develop pneumonia from aspirating sea water after they are chilled. The most extreme case we received this year had a core body temperature of 37 degrees [Fahrenheit]. Many also have flipper injuries and shell fractures because they've been hit by boats or pounded by the surf."



Scott Weber, V'97, (right) and Charles Innis, V'94, rehabilitate a leatherback sea turtle at the aquarium.



Photo by Cristina Santiestevan, New England Aquarium

Aquatic discoveries

Dr. Weber said that the aquarium's relationship with highly respected individuals in the medical, environmental and veterinary professions in New England gives them access to "some incredible diagnostics."

"My colleagues and I work with a pulmonary specialist from Harvard who gives us insight into diagnostics and pharmacokinetics that may not be accessible in the veterinary literature," he explained. "Endoscopy, for example, is becoming an important diagnostic and therapeutic tool for our patients. We perform bronchoscopy on stranded sea turtles to identify the actual agents that are causing the pneumonia so we can provide the most appropriate treatment. We also take endoscopic biopsies of the liver, spleen and gonad from fish patients to look for systemic infections."

Dr. Weber and his colleagues also conduct clinical and conservation medicine research that often benefits the aquatic animals they treat. Currently, they are involved in a three-year investigation to evaluate the efficacy of various forms of vitamin D supplements during rehabilitation of sea turtles. "We've also been satellite-tracking three healthy head-start loggerhead turtles released off southern Cape Cod," he explained. "We know that they made it down to the Carolina coast successfully."

Other current research projects include analyzing the blood values of stranded dolphins and post-release monitoring of them using satellite telemetry to determine whether they can be successfully relocated, and conducting fish-health surveys on the Amazon River in Brazil to promote a sustainable fisheries initiative.

Dr. Weber said that Penn's aquatic animal medicine curriculum was invaluable in preparing him for his career. As one of a handful of veterinarians ever to receive the prestigious Thouron Fellowship, he pursued additional training in the U.K., where he received a master's degree in aquatic pathobiology at the University of Stirling Institute of Aquaculture. He also completed a year of postgraduate research in immunology at the University of Edinborough.

Now as an adjunct professor of aquatic animal medicine for the School, Dr. Weber teaches an annual program in aquarium veterinary medicine. "The New England Aquarium is an integral part of the curriculum for Penn's Aquavet® program," noted Dr. Weber. "I'm proud to be part of it and gratified to have the ability to inspire more students to get involved in this incredible field." ■

With the opening of the School's new Vernon and Shirley Hill Pavilion scheduled for this fall, I am delighted to share the good news with you that Alumni Day 2006 is coming back to Philadelphia on Friday and Saturday, October 6 and 7. Special guests at this year's event will include faculty from every decade.



I also am delighted to announce the arrival of Kate Judge as the new assistant dean for advancement and communication (see p. 24). With her arrival in March, Kate began the interviewing process to fill the alumni director position vacated in early 2005. I also invite you to review the 2005 Alumni Liaison Report at www.vet.upenn.edu. Beginning this year, annual reviews of both campuses will be available on-line.

I am pleased to report that we have made progress in reestablishing the class agent program. Through the hard work and efforts of **Robert Stewart, Jr. V'99, St. George Hunt, V'86, Rob Mankowski, V'04, and Dave Martin, V'66**, the majority of our class agents have been contacted. With this issue of *Bellwether*, we hope to have many alums register and update their contact information by joining the Penn Alumni On-Line Community at www.alumnicconnections.com/olc/pub/UPN. In addition to access to a class directory and a permanent e-mail forwarding service, the On-Line Community provides numerous other services. Another way to update your record is by contacting Elizabeth McNamara at (215) 746-7461 or via e-mail at emcnamar@vet.upenn.edu.

I also want to remind you of the Alumni Society's new electronic communications system, a free listserv, by which you can keep in touch with your classmates (more information on p. 16). Your privacy is ensured, as all updates to the listserv are handled by the School. We are working hard to keep our graduates in touch with each other and the School.

With the success of the Kresge Challenge last fall, the dedication of the Vernon and Shirley Hill Pavilion, the designation of 250 of the 256 classroom seats and the naming of all but one group study room in the new building, we have a lot to be proud of. Much thanks goes to Penn Vet alums and their wonderful generosity. In fact, the majority of group study rooms and seminar rooms and one of the two classrooms are sponsored by our alums. What a wonderful tribute to our alma mater!

We look ahead to the 25th-anniversary celebration of the Ryan Veterinary Hospital building on May 5, followed by more activities in the fall: the Hill Pavilion Dedication, the Rosenthal Imaging Center Grand Opening, the Huidekoper Dinner and Alumni Day. Please join our new dean there for a special reception, reunion dinner, our annual picnic (held this year in the new library), tours of the Hill Pavilion and the Ryan Veterinary Hospital and so much more.

In closing, I again remind you of your importance to the School—it wouldn't exist without you! Please share with us your thoughts and suggestions. Your input is vital to the future of the School. Thank you.

—MARILYN WEBER, V'75