a history of SETAC Part I

SETAC beginnings

A HISTORY OF SETAC PART I
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Environmental Quality Through Science®

This document is dedicated to the tens of thousands of SETAC members living and dead who have supported the Society but, more importantly, have devoted their careers to the environmental sciences. Some joined SETAC at the beginning and have been active since; some have joined, left, and rejoined as career changes led them in different directions.

History will judge the effectiveness of our work. If our dedication and love for what we do is an indicator, we have succeeded.

CONTRIBUTORS

Many of the words you read here and in Part II come from Eugene "Gene" Kenaga and John Giesy, volunteer SETAC "historians." They prepared articles that were published in the SETAC newsletter in North America, *SETAC News,* and they also drafted other unpublished material. Other work presented in *SETAC Beginnings* was first published in the SETAC newsletter in Europe, *SETAC-Europe News*, and in the global SETAC newsletter, *SETAC Globe*, which began publication in 2000. Authorship is noted when known.

In addition to Gene Kenaga and John Giesy, many others have contributed to *A History of SETAC Part I*, including Rod Parrish, John Solbé, Jeff Giddings, Graeme Batley, Chris Bui, and Mimi Meredith, all SETAC members or SETAC Staff (or both!). A professional history writer, Mr. Bill Beck of Indianapolis, Indiana, conducted interviews of most Past Presidents of SETAC Europe, SETAC Asia/Pacific, SETAC Latin America, and SETAC North America, along with Founding Board of Directors (in North America), editors, and other key individuals, and prepared summaries of the interviews, which appear as SETAC Profiles. All the profiles prepared by Mr. Beck will be published in Part II.

To these and others who have reviewed these materials, we thank you for your time and energy expended on behalf of the Society. All errors and omissions are the fault of the editors of this work. We will correct errors and add information in Part II, so please send us your comments.

PREFACE

It is our intent to present the history of the Society of Environmental Toxicology and Chemistry (SETAC) for members past and present, as well as for those who follow us. This is the story of how a group of individuals from different backgrounds elevated the science of the environment during the late 20th and early 21st centuries and how the application of the science led to improvements in environmental quality.

A History of SETAC Part I: SETAC Beginnings provides a brief history of the pre-SETAC years and founding of the Society's geographic units. It will be followed up with a thorough and complete history in 2005.

SETTING THE STAGE: PREHISTORY

In the Beginning Was the War...

During and after World War II, a surge of industrial and university scientific effort was concentrated in the development of insecticides, herbicides, fungicides, and industrial chemicals to improve agriculture and explore new scientific directions to make human life what it is today. However, in the 1950s, large-scale use of certain pesticides in large sections of North America resulted in alarming effects on man and non-target animals and plants. In the 1960s, citizen groups interested in "saving the environment" began to organize, demanded stricter government regulations for preventing indiscriminate use of pesticides, and sought to prevent the use of chemicals that had not been tested for harmful effects on non-target organisms.

Although passionate opinions were expressed by people affected, either directly or indirectly, by the real, apparent, or perceived damage caused by use of synthetic chemicals, these people found it difficult to arouse public opinion or to change industrial policies and government regulations. In their attempts to show that damages were being caused by the widespread use of certain chemicals, such as DDT, dieldrin, and chlordane, groups often made allegations without scientific proof.

While scientists attempted to provide defensible evidence of adverse effects, it became obvious that there was little agreement on what was necessary in the way of test results to establish the environmental effects of any given chemical in organisms. There was no expert who was qualified in all of the scientific disciplines because most had been trained in only one or two fields. However, despite their training, many experts spoke not only on their specialized field but also outside of it, resulting in little advancement in the understanding of evident short-term effects or potential long-term effects of pesticide overuse and misuse.

Pioneers and the Wild, Wild Pesticides

Even before SETAC began, pioneering workers, organizations, and publishers were actively involved in advancing the science in environmental toxicology and chemistry. Federal agencies, such as the U.S. Department of the Interior (USDI) ornithology and mammalian research stations (Patuxent, Maryland, and Denver, Colorado), Bureau of Commercial Fisheries (Gulf Breeze, Florida), USDI fisheries research centers (Columbia, Missouri; LaCrosse, Wisconsin; and Newtown, Ohio), the U.S. Department of Agriculture (USDA), and later the U.S. Environmental Protection Agency (USEPA) pesticide registration groups, funded or conducted research and studies, while organizations, such as the American Chemical Society (ACS), Entomological Society of America, Society of Toxicology (SOT), American Fisheries Society, American Public Health Association, and journals including the *Journal of Wildlife Management*, *Residue Reviews*, and *Bulletin and Archives of Environmental Contamination and Toxicology* featured articles and papers that further enhanced the limited knowledge base.

Robert Ringer of Michigan State University relates being approached about exploring avian toxicity testing methods:

> *About 1962, Gene Kenaga, Dow Chemical; Lucille Stickel, USDI Patuxent Director; and Ralph McMullen, Michigan [Department of Natural Resources] (DNR) came to me and asked whether or not I would consider accepting a grant from Dow, U.S. Fish and Wildlife Service, and the State of Michigan to look at ways of testing for toxicity in birds when they were exposed to pesticides. I was to use DDT, Zectran, Zytron, and Tordon administered to Japanese quail. We did egg-injection studies, lethality, reproduction, effects on basic metabolism, clinical chemistry, and hematology studies.*
>
> *The first official acute toxicity bird test methods for USDA registration of pesticides began with a cooperative agreement*

between the USDI Patuxent Research Station and the National Agricultural Chemicals Association in 1964, I believe. Gene Kenaga was on this committee, and James S. DeWitt authored these methods. No thought was given to long-term studies on wildlife at this time because it was considered too expensive, and we didn't know how to do life-cycle tests in the laboratory.

The early works of these organizations and individuals established a foundation of information for future environmental scientists.

Meanwhile, public meetings pitted experts against each other, each calling the other prejudiced when views differed. High frustrations and heated emotions caused partisan individuals and organizations to speak out publicly at local, state, and federal levels for changes in the system of approving pesticides use. On 12 December 1970, the political pressure from this public clamor resulted in the shifting of the responsibilities for registering pesticides from the USDA to the newly created USEPA.

The Importance of Being Earnestly Impartial

Between 1970 and 1978, the U.S. Congress enacted a series of acts in succession to address environmental issues raised by the environmental groups and advocates. With the onslaught of these environmentally oriented acts, it was necessary to promulgate regulations, which would determine methodologies (test methods) for measuring when and where there were environmental problems, and then to decide what level of contamination of a

Gene Kenaga

SETAC Profile: Eugene Kenaga

Like many of his colleagues in SETAC, Eugene Kenaga grew up stalking prey in the great outdoors. But Kenaga, a charter member, co-founder, and first president of the Society, used a camera instead of a shotgun.

"I started to be interested in nature as a boy," Kenaga said, "but neither as a hunter nor a fisherman. I was a Boy Scout, and I was always a photographer."

Kenaga's nature photography was so accomplished that he later was awarded the prestigious 5-Star membership in the Photographic Society of America.

Born and raised in Midland, Michigan, the descendant of Pennsylvania Dutch pioneers who had moved west in the 19th century, Kenaga spent his undergraduate years at the nearby University of Michigan during the latter years of the Great Depression. While working on a bachelor's degree in zoology and natural history, Kenaga played in the University band and can still recall meeting Wolverine football great Tom Harmon.

Kenaga went on to earn a master's degree in entomology at the University of Kansas, and for much of his career, he worked at Dow Chemical Company in his hometown of Midland.

In the late 1940s and 1950s, there was increasing concern about the effects of the growing numbers of insecticides, herbicides, fungicides, and other pesticides commonly used to improve agricultural output. Rachel Carson articulated many of those concerns for a lay audience with the publication of her *Silent Spring* in 1962. At the time, Kenaga was working in the entomology department at Dow Chemical. He had been discussing potential pesticide toxicity in birds with Lucille Stickel of the U.S. Department of Interior's ornithology and mammalian research station at Patuxent, Maryland and with Ralph McMullen of the Michigan Department of Natural Resources. The three approached Robert Ringer, then at Michigan State University, and asked him to oversee the toxicity tests they proposed. In 1964, Ringer and Michigan State undertook the landmark toxicity testing of birds under the auspices of a cooperative agreement between USDI-Patuxent and the Agricultural Chemicals Association (ACA). Kenaga was instrumental in facilitating that first cooperative agreement and would serve a term as president of the ACA in the 1970s.

given chemical was "safe" in air, water, soil, and in human working and living areas. However, government agencies that administered these newly passed legislations had little scientific knowledge or capabilities to make informed decisions.

The USEPA, for example, did not have sufficient scientific expertise to develop test methods for toxicology, chemistry, and the many other facets of science necessary to make informed regulation of chemicals. Most environmental activist groups were of little help in developing these methods because of their lack of scientific knowledge and their adherence to biased positions. Therefore, the USEPA sought the assistance of scientists and scientific organizations to suggest test methods and to review USEPA regulations. Initially, many government and professional organizations were consulted, and industry was often allowed to review and critique these test methods. Among some of the early groups assisting the scientific methodology for USEPA were the National Agricultural Chemicals Association (NACA), National Research Council (NRC), ACS, USDI Fish and Wildlife Laboratories, USDA Agricultural Research Service, Association of Official Analytical Chemists (AOAC), American Society for Testing and Materials (ASTM), Water Pollution Control Federation, and SOT.

No Information without 1/3 Representation

In 1974, the USEPA hired the American Institute of Biological Sciences (AIBS) to provide the basis for the USEPA's first bird toxicity test protocols. Robert Ringer was selected to chair the AIBS committee, which also included Joe Street, Utah State University; Lowell

The creation of the federal United States Environmental Protection Agency in 1970 and congressional passage of dozens of pieces of new environmental legislation during the decade spurred interest in toxicity studies. By 1978, Gene Kenaga; Richard Tucker of EnviroControl, Inc. in Rockville, Maryland; Dick Kimerle of Monsanto in St. Louis; Don Beem of the American Institute of Biological Sciences in Washington DC; Herb Ward of Rice University, Houston, Texas; John Giesy of Michigan State University, East Lansing, Michigan; and others were discussing the need for a society devoted to environmental toxicology.

"The reason the Society was formed, first and foremost, was there was a real need for a multidisciplinary organization," Kenaga said. "The USEPA had just been formed in 1970, and while they had responsibility for most pesticide regulation, they didn't have a lot of staff of their own to deal with these issues."

In 1979, meetings at Don Beem's office in Washington DC, the new organization drafted bylaws and a constitution, selected a name for the Society, elected an organizing board of directors, and chose Kenaga to be the Society's pro-tem president. In 1980, Kenaga was elected SETAC's first official president.

"We chose three people each from industry, academia and government for that first board of directors," Kenaga explained. "That was a very conscious decision. We didn't want to have any complaining from sectors that thought they were left out."

Kenaga, who became SETAC's first emeritus member, had a definite focus when he was serving as the Society's first president. "We had a mission," he said, "and our mission was to evaluate scientific decision-making with a multidisciplinary approach. And it took so many different sciences to do that."

Gene Kenaga receives the Service Award from SETAC President Robert E. White at the Third Annual Meeting for his long-term, outstanding service to SETAC.

McEwan, USDI Denver; Jerry Longcore, USDI Patuxent; Eugene E. Kenaga, Dow Chemical Company; and Don Lamb, Mobay. Richard K. Tucker, USEPA, attended as an ex officio member, and Max Haegele, USDI Denver, attended some of the meetings. The committee, organized under the auspices of AIBS with Don Beem as a representative, met in small local groups to draft the first reproduction protocols in Tempe, Arizona; Salt Lake City, Utah; and Traverse City, Michigan. The organization of the committee was an early attempt at the concept of 1/3 academia, 1/3 government, and 1/3 industry representation that carried over into the establishment of SETAC.

A High-Flying Balancing Act

By 1976, it was clear that although much laboratory toxicology and environmental chemistry data was being generated, it was difficult to extrapolate this information to the field and very difficult to get multidisciplinary scientists and their data together to make complete hazard assessments. A new approach to making these evaluations seemed necessary. None of the previously mentioned professional organizations seemed to have a broad enough range of scientific disciplines to make the difficult final decision concerning safe amounts of a given chemical in or on all kinds of organisms and their environment.

One of the first efforts to provide expertise along these lines was furnished by the AIBS's Aquatic Hazards of Pesticides Task Group funded by the USEPA. With Don Beem as the AIBS coordinator and James Akerman and David Coppage as USEPA liaisons, members of this group, which included Herb Ward (chair), Richard Kimerle, Ken Dickson, James Duthie, Allan Isensee, Waynon Johnson, and Eugene Kenaga, represented academic, industry, and government scientists. While the group accomplished its task successfully by providing a scheme for a sequence of tests (published in "Criteria and Rationale for Decision Making in Aquatic Hazard Evaluation"), it proved that the balance of academia, business, and government could all work together to advance science.

How Much Work Would a Workshop Work if a Workshop Were in Pellston?

While George Baughman, Wesley Birge, William Brungs, Richard Kimerle, Nicholas de Oude, Jerry Hamelink, John Sprague, Rod Parrish, and Charles Walker were among the participants of the first Pellston Workshop, its origin is best recalled by Alan Maki, who was instrumental in its development:

> *In 1976, President Ford signed a new regulatory initiative called the Toxic Substances Control Act (TSCA) establishing a new Office of Toxic Substances within USEPA. At the time I worked for Procter & Gamble, having been charged to develop programs to ensure the environmental safety of company materials and projects. I had just spent two years in the design and construction of an environmental testing lab, which had the capability to do acute and chronic toxicity testing and study the fate of compounds in wastewater treatment plants.*
>
> *There was a great deal of uncertainty within the environmental community as to just what TSCA meant, how it would be implemented, and what would be the impacts on industrial manufacturers and discharges. This regulatory uncertainty led to a degree of personal discomfort. I could not assure our management that we would meet environmental regulatory requirement, or meet our corporate charge to ensure the environmental safety of our materials. Criteria for ecological acceptability were particularly troublesome because no real guidelines existed.*
>
> *This degree of regulatory uncertainty in turn led me to the need to establish a forum to discuss the state of the science for ecological testing as an attempt to formulate a consensus on where the environmental discipline was going. At the time, ASTM was providing an important role with the annual conference on toxicity testing methods, but their focus was on techniques and methods. What was needed was a true workshop wherein participants could actively debate the issues and attempt to reach consensus. This would provide guidance to the evolving field of environmental safety testing and help to*

Al Maki was instrumental in planning of the first Pellston Workshop. He later served as SETAC President.

The pioneers of the first Pellston Workshop in 1977 (top) might not have known then, but their innovative ideas would be groundbreaking for science and the founding of SETAC. Subsequent Pellston Workshops included the Workshop on Analyzing the Hazard Evaluation Process held in Waterville Valley, New Hampshire, in 1978 (middle) and the Workshop on Population-Level Ecological Risk Assessment in held Roskilde, Denmark, in 2003 (bottom).

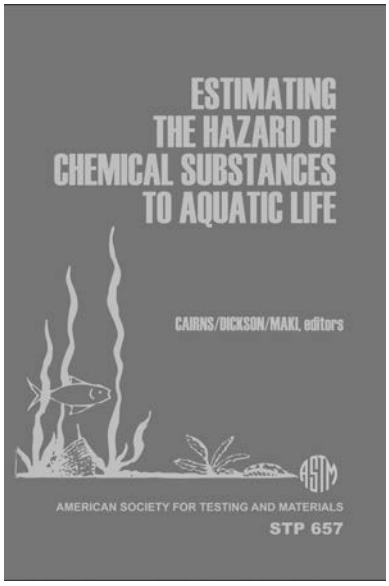
solve the troubling degree of uncertainty that characterized the discipline.

After initial discussions with P&G management in August 1976, I formulated an initial budget for a conceptual workshop. I estimated the cost of the workshop (if we could find the right place to hold it) at $12 to $15K and was given a final budget of $14K to conduct the workshop.

If this workshop were to have any credibility within the broad spectrum environmental community, it would need to have equal involvement from the major facets of the discipline. This need for credibility and acceptance throughout the discipline was the key reason behind the equal representation formula from regulatory agency, academia, and industry.

I contacted the best individuals who I felt could contribute to the planning of this workshop and asked that we convene for a full day session at Crystal City near the DC airport in December 1976. This planning committee included Gene Wallen, Acting Administrator of the new USEPA Office of Toxic Substances; Don Mount, Director of USEPA's Duluth National Water Quality Lab; John Cairns, Director of the Center of Environmental Studies at VPI; Howard Johnson, Department of Fisheries & Wildlife, Michigan State University; Jim Peterson, Academy of Natural Sciences, Philadelphia, PA; Ken Macek, Director of Bionomics, Inc. (later Springborn Bionomics) in Wareham, MA; Al Maki and Chuck Johnson, Environmental Safety Department, The Procter & Gamble Company.

I asked the planning committee to flesh out the workshop concept. We had all been to professional meetings, but what was needed here was a place



The first Pellston Workshop resulted in *Estimating the Hazard of Chemical Substances to Aquatic Life*, published by ASTM. This out-of-print book has been reprinted on the occasion of SETAC's 25th Anniversary to underscore its importance.

for a true workshop. I wanted a place accessible by air yet remote enough to retain a captive working audience for a full week. Several options were explored for the location but none could beat the University of Michigan's Biological Station at Pellston, Michigan, as suggested by John Cairns. He was a summer faculty member there and felt that the facility could handle the group and remain within the constraints of our limited budget.

The planning committee went on to help flesh out the program; name participants in keeping with equal representation from agency, academia, and industry sectors; and define a basis for achieving consensus within the workshop. John Cairns emerged as the chairman and editor for the workshop and asked that Ken Dickson and I serve as co-editors. Funding support for the workshop was then given to John Cairns' s institutution, Virginia Polytechnic Institute and State University, as a grant-in-aid from Procter & Gamble to conduct the workshop and produce the proceedings.

Given the timing and rapidly evolving state of USEPA and TSCA, we felt that the workshop had strong potential to be controversial and influential. Therefore, we had court reporters record all sessions and produce text copy for the discussion sessions by the following morning. We felt that if the workshop was successful, we had a chance to get it published at minimal cost through ASTM. The workshop was convened at Pellston on June 13 to 17, 1977. Proceedings were published as ASTM STP 657, and the rest is history. A number of Pellston-type workshops were held later, sponsored in part by SETAC starting in 1982.

Subsequently, that initial understanding of the power of the relationship was used by USEPA participants to help define the new OTS departmental functions of Environmental Effects and Environmental Processes. The relationship was developed further in the subsequent Pellston workshops, and numerous other activities and the relationship remains as the core of ecological risk assessment thinking today. The relationship and the Pellston formula went on to help define the new society. And importantly, I was able to report to my management at P&G that we now had a least the conceptual basis to meet the charge of ensuring the environmental safety of new materials.

John Giesy remembers calling Alan Maki, a fellow student in graduate school at Michigan State University, to request the opportunity to attend the Pellston Workshop; John was told that "attendance is limited to well-known

aquatic toxicologists" and that he would not be allowed to attend regardless of how much he wanted to. (Students are now invited to attend most SETAC workshops.)

Onward, Ho!

Discussions in environmental sciences continued to flourish, while future SETAC members met in committees, task groups, workshops, and symposia to develop methods, establish guidelines, or review "state of the art" and future needs. Little did future SETACers, such as Virgil Freed, Jim Gillett, Don Kaufman, John Giesy, Fumio Matsumura, Theodore Mill, Gene Rider, Gary Heinz, Mark Jaber, Don Lamb, Larry Turner, Bob Fink, and Gene Kenaga, and other pioneers in wildlife toxicology realize then that their groundbreaking work not only would be the building blocks for the knowledge base still used today but also would produce the need for a new society to provide impartial studies and research and to disseminate this information to public agencies, businesses, and organizations in a scientifically rational manner.

HISTORY IN THE MAKING: THE FOUNDING OF SETAC

Meetings and Discussions to the Letter

In September 1978, Richard E. Tucker of EnviroControl, Inc., in Rockville, Maryland, (now Dynamac Corp., Inc.) felt that "there was a need for a place for scientists representing various facets of our society to meet informally and discuss regulations that affect them. . . .It has been my experience that when communication occurs freely, many differences can be resolved for the benefit of all." He saw the lack of an organization that could "fulfill the interdisciplinary requirements needed to conduct or to implement . . . the current legislation." Because of his limited experience in developing a society, Tucker contacted Donald Beem of the American Institute of Biological Sciences (AIBS) to discuss the concept of a new society. The two developed a draft of the bylaws and constitution and organized a meeting in San Antonio, Texas, in February 1979. Tucker, Beem, and the other attendees at the San Antonio meeting, Richard Kimerle, Art Stern, Richard K. Tucker, and Herb Ward, continued the ongoing discussion for a new society that could represent professionals concerned with environmental toxicology and chemistry.

The concept of a new society was thoroughly discussed at this meeting, and those who were present felt that a new society which focused on integration of many disciplines within environmental chemistry and toxicology was indeed needed and, also, that no existing society fulfilled this niche. The proposed society would complement and not replace or compete with existing organizations. The Ad Hoc Committee addressed the proposed constitution and bylaws. In principle, the constitution and bylaws were accepted, but as it turned out, many revisions would be made in future meetings. The Ad Hoc Committee adjourned, committing to a second meeting to be held at the AIBS headquarters on 30 March 1979.

The main focus of the March meeting was to address the constitution and bylaws, and in particular, the Society's purpose. It was decided that before starting a new society, a letter would be drafted and mailed to a selected group of scientists who were well known and established in the fields of environmental toxicology and chemistry. The letter contained a description of needs perceived by the Ad Hoc Committee, requested suggestions for other needs that a new society might fulfill, and finally, asked whether they would join such a society if it were initiated. At the conclusion of this meeting, the Ad Hoc Committee decided that the venture was worthy of pursuing further, and a meeting was set for 12 June 1979 to make a final decision on establishing the new society based on the returns from the letters. The response from those solicited was overwhelmingly in favor of a new society, and the Ad Hoc Committee went forward with its plans.

A Rose by Any Other Name Just Wouldn't Sound as Sweet

There were two suggestions for the new society's name. One used "risk assessment" in the name, and the other used "toxicology and chemistry." The latter won out because it implied the major scientific disciplines involved. The new Society finally had an identity: the Society of Environmental Toxicology and Chemistry was born.

Having established a name, the committee quickly focused on the Society's acronym, which generated many serious as well as humorous debates. SOETC ("so etc." seemed indicative of the continuing environmental problems), SETC, STAC, ETACS, and SETAC were considered. The latter was more phonetically pleasing, but it sounded too much like the Seattle-Tacoma airport. However, the airport's acronym was "Sea-Tac," and, thus, "SETAC" became the official acronym in October 1979.

Richard Kimerle

SETAC Profile: Richard Kimerle

Richard Kimerle's involvement with SETAC goes back to before the founding of the Society. Kimerle and many of the founders were simply "searching for a scientific home."

Kimerle, like so many of his colleagues in the early days of SETAC, came from a background in industry. A native of St. Louis, he completed his undergraduate and early graduate work in conservation and wildlife management and aquatic entomology at the University of Missouri. "A major professor wanted me to get a doctorate at Oregon State University in Corvallis," Kimerle recalled, "so I enrolled at the entomology department, which had strong links to the fisheries department and environmental engineering."

With his doctorate in hand, Kimerle returned to St. Louis in 1968 to a job in environmental biology with Monsanto. The chemical firm at the time was ramping up its initiative to find solutions to the problems of eutrophication caused by the chemicals in detergents. "I quickly found a home there," Kimerle said.

Kimerle, like most of his contemporaries in industrial environmental toxicology, was early on involved with the American Society for Testing and Materials (ASTM). "They were assessing the effects of chemicals on aquatic life," Kimerle said. "It was an early example of risk assessment."

"But there was no society that represented those of us in aquatic biology and environmental toxicology," Kimerle adds.

ASTM met in St. Louis in 1975, and Kimerle invited several of his colleagues to his home to discuss founding a new society. "We were looking for a scientific home," Kimerle said. "So we set up a scientific symposium within ASTM. I don't want to claim we spawned the idea of a professional society. Actually, we were sitting around my living room, drinking beer, and kicking around ideas."

Two years later, Kimerle was a member of the founding board of SETAC. Dow Chemical's Eugene Kenega served as the Society's first president, and Donald R. Beem of the American Institute of Biological Sciences (AIBS) was the secretary–treasurer. "I did a lot of things those first three or four years," Kimerle recalled. "I served on the board of directors twice, but I was never president. I had a job to do at Monsanto."

Kimerle explained that Beem's role in the early Society was critical. "In the early days, SETAC was located in the AIBS offices in Washington DC," he said. "Don Beem held all our hands. That AIBS connection helped us with facilities. Functionally, Don Beem was the Society's first executive director."

One favorite Kimerle story involved the Society's finances. "At one of the early board meetings," noted Kimerle, "we decided we had to get some money in the bank. We decided to tax ourselves. Everybody threw a couple of hundred dollars in a pot. We raised $1,200 or $1,500 to help Don Beem buy paper and stamps."

Kimerle also recalled that the group "kicked around a number of words and acronyms. I remember that there was a concern among some of the board members that there was a SeaTac Airport near Seattle."

Now seven years removed from active SETAC membership, Kimerle explained that the Society's success stemmed from the "representation from the university, industry, and government. That was a stroke of genius. We consciously modeled that on ASTM. It really balanced things. It brought all the factions of the science together."

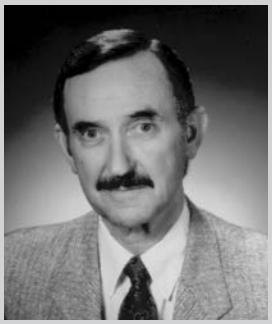
Business Matters: Boards, a Hundred Bucks, and Some Rings

On 12 June 1979, an organizing (pro-tem) Board of Directors was formed. The people chosen were selected to represent government, academia, and industry. The Directors were assigned committee jobs as follows:

- Incorporation Committee: Dick Tucker (EnviroControl) and John Lyons (acting as legal advisor; EnviroControl);
- Membership Committee: Don Beem (AIBS), Bill Ewell (Eastman Kodak Company), and Charles Walker (U. S. Fish and Wildlife Service);
- Publication and Communication Committee: John Laseter (University of New Orleans), Herb Ward (Rice University), Gene Kenaga (The Dow Chemical Company), Virgil Freed (Oregon State University), and later Donald Kaufman (USDA);
- Program and Planning Committee: Gene Kenaga, Richard K. Tucker (EPA), Richard Kimerle (Monsanto), Fumio Matsumura (Michigan State University), and Ruth Arisman (General Electric Company);
- Finance and Business Committee: Dick Tucker, Arthur Stern (USEPA), Herb Ward, and later Don Beem.

In a meeting that took place on 31 July and 1 August 1979, several important matters necessary to establishing SETAC as an organization were agreed upon, but more importantly, pro-tem officers were elected: Gene Kenaga was elected President, Charles Walker elected Vice-President, and Don Beem

The first SETAC Board of Directors at the First Annual Meeting. Standing (left to right): Gene Kenaga, Richard Kimerle, Fumio Matsumura, Donald Beem, Richard E. Tucker, Herb Ward, William Ewell, and Richard K. Tucker. Sitting (left to right): Donald Kaufman, Ida McDonald, Arthur Stern, and Ruth Arisman. Charles Waller absent.



Herb Ward

SETAC Profile: Herb Ward

C.H. "Herb" Ward's memory of the founding of SETAC is at odds with that of some of his fellow co-founders. Ward remembered a "smoke-filled room at a meeting in San Antonio. We all smoked and drank whiskey back then." In the room were Don Beem of the American Institute of Biological Sciences (AIBS), consultant Richard K. Tucker, Dick Kimerle of Monsanto, and others. The group had discussed sending a survey to environmental toxicologists and chemists to assay interest. But designing, printing, and mailing a survey implied printing and postage costs. It was at that stage in the discussion that Ward had to use the men's room.

"When I came back," Ward said, "the nine guys in the room all said, 'We're going to pony up $200 apiece to get this started.' I've always suspected they cooked the books. I found out later on they all put $100 in the pot and told me to write a check for $200."

Ward's acerbic wit has kept SETAC colleagues laughing through a quarter-century of Society affairs. The first—and to this day, the only—editor of SETAC's journal, *Environmental Toxicology and Chemistry* (*ET&C*), Ward is an institution in scientific publishing.

Born in Arkansas in the depths of the Great Depression, Ward was two years old when his family joined the migration of "Arkies and Okies" west to California. He grew up in the Golden State's Santa Clara Valley, got a football scholarship to the New Mexico College of Agriculture and Mechanical Arts in Las Cruces, and wound up earning his master's degree and doctorate in plant pathology at Cornell University.

In 1960, Dr. Ward was also 2nd Lt. Ward in the U.S. Air Force. The administration of President John F. Kennedy had promised to put a man on the moon before the decade was over, and Ward spent much of the 1960s in the military with the U.S. Air Force School of Aerospace Medicine in San Antonio, Texas. In 1966, he joined the department of chemical engineering at Rice University, and he has remained on the faculty at Rice in one capacity or another since. From 1993 to 2003, Ward served as the Foyt Family Chair of Engineering, as well as professor of civil and environmental engineering and of ecology and environmental biology. Since 2003, Ward has been chair of the department of civil and environmental engineering.

Ward's involvement with *ET&C* dates to the beginnings of the Society. A member of SETAC's first board of directors, Ward was at the board meeting in Don Beem's office at AIBS in 1979 when officers were initially appointed and committee assignments passed out. "We had to have committee chairs," Ward explained. "Somebody said, 'We need a journal.' And they all said, 'Herb, you create the journal.' Bernie Astil from Eastman Kodak was on that original committee with me. We wrote an RFP and sent it to 12 publishers."

Pergamon Press in Oxford, England, submitted the best offer for publishing SETAC's new journal. "They opened up their books and showed us the spreadsheets," Ward said. "They agreed to do all front-end money. It was a five-year contract, and before it expired, SETAC started getting a positive cash flow. That first year, we published 320 pages in four issues. It became a bimonthly and then later a monthly."

Pergamon was owned by Robert Maxwell, the Australian press lord who disappeared off his moored yacht in the Canary Islands. Ward recalled attending a party at Maxwell's Oxford castle and meeting the press baron. When introduced, Maxwell told everyone in earshot that Ward worked for him.

"Mr. Maxwell, I don't work for you," Ward shot back. "You work for me."

Ward "never intended to stay this long as editor-in-chief. Now, I have a staff of four people, and we read hundreds of papers each year. And it's all pro-bono."

Herb Ward celebrated his 71st birthday in 2004. "I won't be editor much longer," he said. "I'll likely retire in a year-and-a-half. It's time for me to move on."

On the left is an early attempt at the SETAC logo; on the right is the current logo. A more conventional font was chosen, but the rings were practically unchanged. The logo became a registered trademark in 1989.

elected Secretary–Treasurer. Don Beem offered the use of the AIBS boardroom in Rosslyn, Virginia, as home for SETAC's board meetings. Dick Tucker offered the use of his own services from EnviroControl and was named Executive Director ex officio. Tucker and his secretary, Ida McDonald, would operate SETAC's business office at EnviroControl. An Executive Committee was established consisting of Bill Ewell, Dick Tucker, and the officers.

The constitution and bylaws were modified by Don Beem and reviewed by Dick Tucker, Charles Walker, and Ruth Arisman. The matter of finance was initially settled by the Board Members, who donated $100 each to SETAC. [Editors note: Herb Ward tells an interesting story about returning to the room after taking a break and finding that he was required to pay $200!]

A SETAC logo and letterhead committee was formed with Bill Ewell as chairman. In October 1979, Bill reported on a logo prepared by Robert La Flem of the Eastman Kodak art department. This logo contained fused benzene rings (phenanthrene) to represent chemistry and a bird, plant, air, water, and soil to represent the environment. SETAC's familiar symbol was born! Walter Peters III of AIBS shortly after designed a SETAC letterhead.

After the constitution and bylaws were approved, the articles of incorporation papers were prepared by John Lyons and were approved and signed by Don Beem, Gene Kenaga, Dick Tucker, and Charles Walker at a board meeting on 30 October 1979. The papers were sent to the Recorder of Deeds in Washington DC on 19 November 1979, and SETAC was soon certified as a non-profit organization on 28 November 1979.

Richard Tucker served as Executive Director from his office at EnviroControl

Ruth Arisman, the membership chair, and Bill Ewell soon drafted a membership application form with a cover letter by President Kenaga mailed 30 November 1979 to more than 1,000 potential members. SETAC charter membership was to be available through 30 October 1980 for $30. A sustaining membership committee chaired by Gene Kenaga was created for financial support to the Development Fund to be contributed by industry, trade associations, and other foundations, and the Dow Chemical Company became the first sustaining member on 28 December 1979.

SETAC Tidbits: Global News

In 1979, the Society decided to publish a newsletter, and Donald Kaufman was appointed its editor. The first newsletter, issued in November 1980, spoke of possible international organizations affiliated with SETAC, as well as an employment service department. Widely praised by members for its usefulness, *SETAC News* was a source for current events and communication among members. When SETAC-Europe was founded, one of its goals was to have a newsletter similar to *SETAC News*. *SETAC-Europe News*, first published in 1989 with Dr. Opperhuizen serving as editor, contained a mere two pages, but it continued to grow, using copy from *SETAC News*. In 1999, *SETAC News* and *SETAC-Europe News* appeared for the last time. January 2000 introduced the Society to a new global newsletter, *SETAC Globe*, with Jeff Giddings as the editor. He explained that what would go into *SETAC Globe* was "simple: relevance to SETAC's scope or the interests of its individual members." The *SETAC Globe* continues to be popular among old and new members worldwide. Jeff Giddings stepped down as editor and Robert Gensemer took over in 2004.

In 2000, *SETAC Globe* took over where *SETAC News* and *SETAC-Europe News* left off.

The Initial Meeting

On 19 November 1979, the decision was made to hold the first annual meeting at the Sheraton National Hotel in Arlington, Virginia, for two days in 1980. Richard K. Tucker was appointed chairman of the program committee with Fumio Matsumura and Richard Kimerle, who also organized the first poster session. The theme "Environmental Risk Assessment — An Integrated Approach" was chosen for the program title.

Dick Tucker was able to obtain $17,000 in financial aid from the USEPA for conducting the first SETAC Annual Meeting. The meeting was held 24 and 25 November 1980 with more than 70 oral presentations and 16 poster sessions, and approximately 470 people attended. Friederich Schmidt-Bleek, director of the Federal Environmental Protection Agency of West Germany, presented the plenary address. Joshua Lederburg, president of Rockefeller University and Nobel Laureate in genetics, received the first SETAC Founders Award.

In his presidential address, Gene Kenaga expressed the reason for founding the society:

The Society of Environmental Toxicology and Chemistry was founded on the basis of need for the development of a more scientific approach to hazard evaluation of chemicals, stressing an integrated interdisciplinary approach. Whereas much progress has been made in the development of specific tests from toxicity and chemical fate in the environment, the need still remains for tests that are easily interpretable and extrapolatable to conditions in natural environments. In other words, how do we make use of the numbers generated by bonafide test methods? Such a task is obviously beyond the normal sphere of many dedicated scientists who spend most of their time

President Gene Kenaga presents the Founders Award in recognition of scientific excellence in environmental toxicology and chemistry to Nobel Laureate Joshua Lederberg at the First Annual Meeting in 1980.

SETAC Tidbits: Founders and Fellows

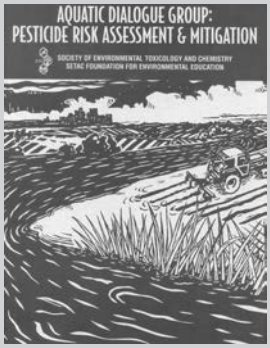
Shortly after the First Annual Meeting, two awards were officially established: the SETAC Founders Award and The SETAC Doctoral Fellowship sponsored by The Procter & Gamble Company.

While Nobel laureate Josh Lederberg received the first Founders Award at the First Annual Meeting before the award was open for competition, John Cairns, Jr., and Eugene Odum received the award at the Second Annual Meeting in 1981 for their accomplishments in their respective fields (Cairns for freshwater ecology and aquatic toxicology and Odum for ecology and ecosystems). Recipients of the award make clearly identifiable contributions in the environmental sciences that are consistent with the goals of SETAC.

Students were (and still are) a major part of the SETAC, and the Society wanted to help students in any way possible. A founding Sustaining Member, The Procter & Gamble Company took the initiative to establish a fellowship to assist students. The SETAC Doctoral Fellowship quickly became a reality in large part because of Procter & Gamble, which continues to take an active role in encouraging students and SETAC. A young graduate student named William Benson from the University of Kentucky was the award's first recipient in 1983. Doctoral Fellows receive a stipend for full-time dissertation research in the pursuit of a Ph.D. degree in environmental toxicology, environmental chemistry, or related disciplines.

SETAC Tidbits: Pressing for Books

Many SETAC members were prominent scholars and professionals with hundreds of publications under their belts long before SETAC released its first publication. In 1986, *Multispecies Toxicity Testing*, edited by John Cairns, Jr., was the first SETAC book published as a SETAC Special Publication by CRC Press (the idea for a series of book publications, entitled "SETAC Special Publications" was formulated by Herb Ward and others in 1986). SETAC self-published its first report, *Research Priorities in Environmental Risk Assessment* (James Fava et al.) in 1987. At the Fifteenth Annual Meeting in 1994, the Board voted to establish SETAC Press instead of contracting with a commercial publisher. Its first task was to take over the publication of the Society's journal, *Environmental Toxicology and Chemistry*. In 1996, the SETAC Press imprint published its first book, *Aquatic Dialogue Group: Pesticide Risk Assessment & Mitigation*. SETAC Press books are generally peer reviewed for SETAC by acknowledged experts. SETAC books editors have included Chris Ingersoll, Tom La Point, Barbara Walton, and Herb Ward. Andrew Green is the current Coordinating Editor of SETAC Books. Today, SETAC has more than 70 publications in its catalog.



Resaerch Priorities in Environmental Risk Assessment was the first self-published SETAC book. *Aquatic Dialogue Group: Pesticide Risk Assessment & Mitigation* was the first SETAC book to bear the SETAC Press imprint.

and efforts becoming experts in their own important but narrower fields of interest. Thus, the multidisciplinary approach so far is not well developed. Scientists need to generate data which are considered acceptable for a given evaluation purpose. The development of a group dedicated to hazard assessment for the total environment was noted as a necessity by a growing group of interested scientists from all walks of scientific life; from academia, industry, and government. Decisions on pesticides and toxic chemicals have been made in the absence of toxicological levels, which are compared with realistic use patterns of chemicals and their gradual residue decline, distribution and fate in the environment.

The integrated interdisciplinary approach to risk assessment involves chemists, toxicologists, biologists, engineers, meteorologists, ecologists, geologists, hydrologists, etc., all speaking and working together in a peer review system. It also involves the use of a tiered evaluation scheme, which allows testing priorities to shift, depending on the sequentially derived data. The value of this approach is that many tests, which might be done on a checklist basis may be eliminated depending upon the need as judged by use, persistence, toxicity, and potential distribution in various segments of the environment.

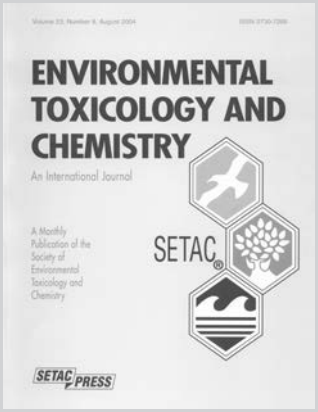
It takes a lot of effort to get a new society established. Your SETAC Board of Directors, which has done yeoman service, and the organizations backing them are to be congratulated for their foresight in helping a fast-growing fledgling. We now are getting our wings. With the advent of our membership services such as the symposium, proceedings, newsletter, and publication, we will be flying. Thanks for your help.

John Giesy, remembers being very impressed by the first annual meeting.

It was a fantastic experience that changed the course of my career. For ten years I have searched the various professional and academic societies

SETAC Tidbits: *ETAC*

In 1980, a Publication and Communication Committee was established with Bernard Astill as chair. The committee's task was to explore the possiblities of a newsletter for members and an international scientific journal. While the Society was able to quickly publish a newsletter, a journal would take a little time. In April 1981, an editorial board for *Environmental Toxicology and Chemistry* (*ETAC*, later *ET&C*) was formed, with Herb Ward appointed editor-in-chief. The editors had high expectations for this new journal: "The editors intend *ETAC* to be a journal of the highest quality, with high standards of peer review. *ETAC* will be interdisciplinary, and will publish manuscripts dealing with the effects and behavior of substances in the environment, with emphasis on the risk assessment process." In September 1981, Pergamon agreed to put up the money and publish the journal for five years. SETAC began self-publishing the journal in 1995. What began as a quarterly journal became a bimonthly and then monthly publication that is highly respected and the second-most cited in its field, with a readership of more than 20,000. Very little has changed in regard to its quality, and it's no wonder: Herb Ward continues to serve as the editor-in-chief.



ET&C then and *ET&C* now. While the size, frequency, and publisher may have changed, its appearance is still recognizable.

for a home, but always felt on the periphery, out of the mainstream of each society.

Giesy was so enthusiastic about SETAC that he wrote to the president, "I was so impressed with SETAC and felt such an affinity for the people and programs that I would like to become involved with the society. Please give me any assignment that you feel would be helpful."

The meeting was pronounced an outstanding success. When it ended, SETAC had 343 Charter Members.

Directing Traffic

Since SETAC's founding, its business office was run from an office at Enviro-Control by part-time Executive Director Richard Tucker and his assistant, Ida McDonald, both working on a volunteer basis. However, in 1988, the two announced their plans to step down from the positions at the end of the year. The Society's Long-Range Planning Committee (LRPC) soon evaluated options for a cost-effective and high-quality management for the Society.

In a Board meeting in March 1988, the committee recommended the Interna-

David Sanasack was SETAC's Executive Director through IMG.

tional Management Group, Inc. (IMG), located in Washington DC to manage SETAC. The board approved and the LRPC finalized the agreement with IMG in May 1988 to administratively manage SETAC, and David Sanasack became the Society's Executive Director.

Laying the Foundation

In a presidential message in January 1990, Rod Parrish noted the recurring themes in various meetings and committees in previous years: education and communication. Charged with developing a plan for the formation of an educational foundation, the SETAC Past Presidents Council finalized a plan in February and in March recommended to the Board of Directors the approval of incorporating the SETAC Foundation for Environmental Education. The goals of the SETAC Foundation included the following:

- enhance the scientific approach to assessment of risk and benefits of chemicals in the environment;
- enhance public awareness of everyday risk and benefit;
- strengthen the technical basis for risk assessment by supporting the purpose of SETAC;
- influence research directions;
- provide training and education grants;
- aid SETAC educational activities; and
- acquire, preserve, and build the necessary financial resources to accomplish these objectives.

The Board quickly approved, and the Foundation received its Certificate of Incorporation. A grant from The Procter & Gamble Company and additional funds committed by SETAC provided the financial backing needed for the initial operations.

Under New Management

With the establishment of the SETAC Foundation for Environmental Education, a search for a full-time Executive Director was underway. Meanwhile, SETAC was still being managed by

Bill Bishop

SETAC Profile: William E. Bishop

William E. "Bill" Bishop knew at an early age that he had a natural affinity for science. "When I was in eighth grade," he said, "I won third place in the regional Science Fair. I did an assessment of the effects of household products on protozoa. I had no idea then that I would spend most of my professional life looking at the environmental safety of household chemicals."

Born and raised in Elwood, Indiana—the home of presidential candidate Wendell Willkie—Bishop's scientific career took him to Cincinnati, where he recently retired following a career spanning a quarter-century in product safety with The Procter & Gamble Company. From 1977 to 1991, he was a member of P&G's corporate Environmental Science Department, holding positions of Research Toxicologist, Section Head, and Associate Director. At the time of his retirement in 2001, he was a Principal Scientist in P&G's Global Technical Policy Department, working to influence the development of corporate, regulatory, and public policy based on sound science risk assessment and free market principles.

A graduate of Earlham College, Bishop earned his master's degree in biology at Ball State University and his doctorate in environmental toxicology in 1976 at Purdue University. Prior to joining the staff of P&G in 1977, Bishop taught at Indiana Vocational Technical College in Muncie and at the Earlham College Biological Station on Dewart Lake. During the summers, he worked for the Indiana State Board of Health conducting stream surveys. When Bishop went to work for P&G in 1977, the Cincinnati-based household products manufacturer was already home to a number of people who would become charter members of SETAC. Chief among them was Alan Maki.

"In early 1977, Al Maki was organizing a Steering Committee of environmental toxicologists and chemists from governmental agencies, academia, and industry to conduct the first Pellston Conference that year," Bishop said. "For P&G, the idea of SETAC goes back long before there was a SETAC organization."

IMG. In February 1991, Rod Parrish began a one-year term as Executive Director of the SETAC Foundation. His office was located in a suite of an old hospital in Pensacola, Florida.

In 1992, the Society decided to consolidate management of SETAC and the SETAC Foundation into one location. The Board of Directors believed that self-management would result in continual improvements in the Society and its operations. Rod Parrish now served as Executive Director for the Foundation and the Society. A staff was hired to serve Society members from the Pensacola office, now SETAC's headquarters.

Linda Longsworth, Rod Parrish, Leslie Long, Gail Weirich, and Cheri Mertins were the Society's first staff under self-management. The orignal staff worked together for more than a decade. Linda and Rod still work from the SETAC office in Pensacola.

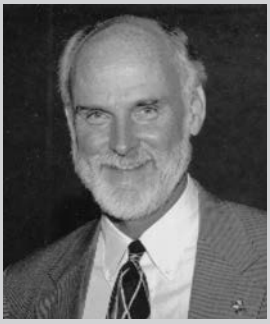
It was an exciting time to be an environmental scientist working for P&G, which over the years would have hundreds of its employees as members of SETAC. "Jim Duthie worked for P&G as an engineer," Bishop explained. "It was in the early 1970s that Jim and others began to think about environmental risk assessment in a decision-making framework. That was largely unplowed ground at the time."

Like many of his colleagues, Bishop flirted with adopting ASTM as a scientific haven. He recalled an ASTM symposium in Cleveland in 1977 at which most of those in attendance spent the majority of their time "talking about the field and the need for a home. ASTM was primarily focused on the development of standardized testing methods." Bishop first heard of SETAC "as it was being developed. The first meeting was at the Sheraton Hotel in Arlington, Virginia. At that first meeting, I knew almost everyone there."

By 1985, Bishop had been elected to the first of two consecutive three-year terms on the SETAC Board of Directors. In November 1987, he took office as President to succeed Ken Dickson. The previous year, Dickson had appointed Bishop to head SETAC's first Long-Range Planning Committee. "The issue was managing the 'business' of the Society," Bishop said. "SETAC was a volunteer organization in the early years. At the annual meeting, the president tried to talk somebody into being the chair of the next year's annual meeting. We knew we had to hire a management firm. We ended up hiring a firm out of Washington DC, and we developed the first contract with International Management Group. We took the organization from volunteer standing to management by a professional firm."

During Bishop's term as President, the Society grew its regional chapters structure and began to have discussions about establishing the SETAC Foundation. Bishop is also proud of commencing the initial steps toward globalization. "We hosted a meeting in Cincinnati to start looking at setting up the international organization," he said. "Nick de Oude, who was with P&G's Brussels office, Chris Lee with Unilever in the UK, Jim Fava, and Ken Dickson all participated in that early globalization planning meeting."

As Bill Bishop looks back on a quarter century with P&G and SETAC, he has one unfulfilled wish. "My biggest wish," he said, "is that no environmental policy setting organization would think about taking action on anything unless it knew SETAC's position on the matter. I wish we were more influential."



Rod Parrish

SETAC Profile: Rod Parrish

For Rod Parrish, there are two paramount things in life. "My family is first," Parrish said. "SETAC is second."

Parrish, who will step down in 2005 as SETAC's only full-time Executive Director, is a fifth-generation Floridian whose family still has the original deed to their property signed by then President John Quincy Adams in 1827. He grew up in Vernon, a small town in the middle of Florida's vast Panhandle. His father was a carpenter, and his mother taught school. Parrish was married on New Year's Eve of 1962, and the marriage has lasted nearly 42 years.

During his undergraduate years at Florida State University in Tallahassee in the early 1960s, Parrish performed in the Seminoles' student circus as a trapeze artist, and his bride-to-be, Debbie, was his partner. He earned two bachelor's degrees and a master's degree in marine biology from Florida State. Parrish broke up his academic years with a stint in the U.S. Air Force, where he served in management analysis with the Strategic Air Command at bases in Wichita Falls, Texas, and Goose Bay, Labrador.

Like many of his colleagues in SETAC, Parrish has enjoyed a varied and eclectic work career. He worked for the State of Florida and spent several years at Florida Power's Crystal River Nuclear Generating Station. He studied the effects of the fire ant killer Mirex and other pesticides at the USEPA's Gulf Breeze Laboratory (Gulf Breeze, Florida) and for seven years worked at a private testing laboratory near Pensacola. After the ranks of federal scientific organizations were decimated in the early 1980s and the impetus for testing new chemicals diminished, Parrish was made redundant by his employers and reverted to the trade his father had taught him.

"For a while there, I built gazebos, screened porches, and Florida rooms," he said.

Parrish was a charter member of SETAC, serving as the Society's president in 1989 through 1990. At the time, he was back working at the USEPA, and SETAC was seriously considering shifting to self-management. Parrish seemed to be an obvious choice to take the reins of the organization and bring it forward. "I knew the Society up one side and down the other," he said. "I wanted to put things into action rather than be involved in pure research."

In 1991, Parrish took over as Executive Director of the SETAC Foundation for Environmental Education. The USEPA paid half his salary, and the Foundation paid half. In January 1992, SETAC officially began self-management. Parrish was named the Society's first, and so far only, Executive Director of the self-managed organization. His first hire was Linda Longsworth, whom he had known for years. Today, the Society has a staff of 11 people. Membership was just under 400 in 1979 when Parrish became a charter member. Membership worldwide peaked at 5,600 in 1998 and is again inching up to the 5,000 mark as Parrish prepares to hand the reins to a successor in 2005.

"The effort over the years was not to get bigger," Parrish said, "but to get better."

As he surveyed his accomplishments in day-to-day operation of the Society through more than half of its 25-year history, Parrish can look back on a solid list of achievements. The organization began self-publishing *Environmental Toxicology and Chemistry* (*ET&C*) in 1996 and started to publish books two years later. The Society has sponsored more than 40 Pellston Workshops. SETAC began the World Council in 2002. Under Parrish's leadership, the Society instituted a website and put *ET&C*, the newsletter, and the member directory online. Also under his tutelage, a second journal, *Integrated Environmental Assessment and Management*, is set to begin publication in 2005.

Through it all, Rod Parrish has had "no regrets. I'm absolutely going to miss it. I love the people in this office." Looking to the future, Parrish said he expects membership to grow dramatically in the years to come. "You'll see SETAC with many, many more members, especially around the world," he said. "Today, North America makes up about 68 percent of Society membership, but I see that shifting. China and Asia-Pacific will be big."

He notes that he will always stay in touch with SETAC because "it is so much a part of me. It is a wonderful organization with fantastic people."

EXPANDING HORIZONS: A GLOBAL SOCIETY

Just Another Chapter in History

In a short article published in the very first issue of *SETAC News*, dated November 1980, Donald D. Kaufmann, then the editor, briefly mentions the Society's possible international implications and affiliations with other organizations. Kaufman notes that some "Canadian friends" have an interest in "the possible formation of a 'Canadian Society of Environmental Toxicology.'" Additionally, Kaufman explains that the board members had also "received word of the formation of an 'International Society of Toxicology and Environmental Chemists' in Europe. In view of the similar aims and goals, these contacts [were] being thoroughly explored by [the] SETAC Board." Despite its brevity, the article certainly indicates the magnitude of SETAC's prominence and reputation in only two years of existence. SETAC had attracted the attention of scientific communities across oceans and continents.

From the end of the First Annual Meeting to the end of the Second Annual Meeting, SETAC's membership had nearly doubled. With a growing number of committed and active participants, the SETAC Board of Directors realized that localized groups could better serve its members not only in the U.S. but also in Canada and Europe. Additionally, the Board knew that students were the future of the Society. Charged to further explore these concepts, the chair of the membership committee, Ruth Arisman, helped to develop the Chapter Program that led to the establishment of SETAC regional chapters. On 20 May 1982, the Hudson-Delaware Chapter became SETAC's first chapter run locally by an Executive Committee comprised of Gordon Loewengart, President; Vic Dorr, Vice-President; Dennis Stainken, Vice-President Elect; Daniel Drozdowski, Secretary–Treasurer; and William Ewell, Robert Pierce, and Michael Gallo, Advisers. Soon, other local student chapters ratified their own constitutions and bylaws, established their own boards, and held their own meetings. With the help of the regional chapters, SETAC had an impact at local, national, and international levels. The number of regional chapters has grown to a strong 17, full of eager members who continue to make their marks on SETAC. In North America, student chapters have also proven a valuable means of involving those individuals who go on to lead the Society. Student chapters have a faculty advisor who is a SETAC member. Chapters can be comprised of students from more than one university or college, as was the case when the Carolinas Student Chapter was formed.

The Hudson-Delaware Chapter logo

Groups and Group Meetings: The Founding of SETAC-Europe

Societies and organizations that focused on toxicology were nothing new in Europe. The UK Ad Hoc Toxicity Testing Group, a group of government, industry, and academic ecotoxicologists in the UK, started in the 1950s, while the International Society of Ecotoxicology and Environmental Safety (SECOTOX) was established just prior to SETAC. However, it was not until the late 1980s that SETAC-Europe (now "SETAC Europe") was officially founded.

In 1987, John Giesy presented his conclusions on the current status of European organizations in environmental toxicology and chemistry, and he suggested a Europe-based entity of the Society. His contacts in both Europe and North America were receptive to the notion, and soon, discussions generated more ideas for a SETAC in Europe.

In the outgoing presidential address at the SETAC Eighth Annual Meeting in 1987, Ken Dickson explained how the Board had been "exploring how to expand SETAC's activities more effectively into the international arena."

Ruth Arisman

SETAC Profile: Ruth Arisman

Dr. Ruth K. Arisman brought a unique feminine perspective to SETAC's first board of directors. The only female selected for the nine-member board, Arisman was then the newly appointed manager of environmental and analytical services at General Electric's Capacitor Products Division in Hudson Falls, New York.

Arisman put her selection to SETAC's board in perspective by noting that "in those days, being a female in management at General Electric was unique. Everywhere I went, whether it was to GE management seminars, conferences at the Chemical Manufacturers Association (CMA), or meetings of the SETAC board, I was the only female."

Arisman, today the vice president of environmental consulting at Akagaha, Inc., a consulting firm in Houston, Texas, and Albany, New York, grew up in Piedmont, South Carolina. She was married and had children before completing her education, finishing her bachelor's degree in 1971 and doctorate in chemistry in 1974, both at the University of South Carolina.

Arisman's first job in 1975 took her north to Upstate New York, where she joined the staff of GE's Capacitor Products Division on the Hudson River north of New York City. GE and the State of New York had then recently signed an agreement whereby the Schenectady-based firm would clean up polychlorinated biphenyls from the river. Arisman was hired as a physical chemist to assist with the cleanup. She would work the next 22 years for GE in New York, Alabama, and Massachusetts.

In 1979, Arisman was approached at a CMA committee meeting by Bill Ewell, then an environmental staff member at Eastman Kodak's offices in Rochester, New York. Ewell described a new society that would bring together environmental toxicologists and chemists in a meaningful effort to tackle many of the environmental issues facing American industry at the time.

"Bill talked about the concept," Arisman recalled. "He said it was driven by the aquatic toxicologists, but that as a chemist, I could bring a different perspective to the organization. GE was supportive, and I was interested in participating in a society with a balance among industry, consultants, academia, and government. It was exciting to be able to formulate ideas and promote research."

Arisman was very much involved in the design of SETAC's logo. She remembered that the original logo had three benzene rings with the sky on top and trees and water below. "Bill Ewell said the toxicologists had come to him with a concern that the way the three rings were arranged could be interpreted as a carcinogen. Then they arranged it the way it is now."

Arisman was the first chairperson of SETAC's membership committee. The committee spent much of its time creating a structure for what would become the Society's initial chapters. SETAC board meetings in 1979 and 1980 were held at Don Beem's offices at the American Institute of Biological Sciences (AIBS) in Washington DC, and Arisman said a disproportionate share of those early meetings was taken up with planning the Society's annual conference.

"We would also have proposals from various government agencies about cooperative agreements," Arisman noted.

After five years on the board of directors, Arisman stepped down to let others take the reins of Society leadership. But Ruth Arisman noted that her years on the SETAC board were some of the most satisfactory in her career. "We were on the leading edge of everything in environmental work," she said. "It was great to be setting the pace."

John Giesy

SETAC Profile: John Giesy

Like many in his generation, John Giesy was influenced by the environmental consciousness that swept the baby boom society in the late 1960s and early 1970s. A native of Flint, Michigan, Giesy completed his undergraduate work at Alma College and then earned his master's and doctoral degrees at Michigan State University in East Lansing.

"I expected to go to medical school," Giesy said of his career path. "I went to a summer project on air pollution at the University of Michigan's Pellston Laboratory. I ended up doing a graduate project on contamination in Michigan's Pine River. I was very, very impressed by the extent of the contamination. It was pretty disgusting."

A hunter and angler all of his life, Giesy was president of a local environmental activist group when the first Earth Day was held in 1970. "I decided to do something about the pollution," he said.

With his doctorate in hand, Giesy left his native Michigan in 1972 for the Savannah River Ecology Laboratory at the University of Georgia. He was in the Peach State seven years when he was offered a position at Michigan State, his alma mater. During his last year in Georgia, Giesy was introduced to SETAC by a Michigan State graduate student. Al Maki was then involved with helping to run the Pellston Conference, and he was an early proponent of SETAC. Maki talked Giesy into attending the Society's first conference in Arlington, Virginia in 1980.

"I got into a van and drove to DC for that first annual meeting," Giesy recalled. "I was just blown away by the people, the camaraderie, the papers. There was just something different about that meeting."

Michigan State at the time was a hotbed of SETAC activism. Maki and longtime Giesy friend Harold Bergman would go on to become SETAC's third and fifth presidents, respectively. Giesy's boss, Fumio Matsumura, was on SETAC's founding board of directors.

"My first job with SETAC was peddling 600 journal subscriptions to academic libraries," Giesy laughed at the memory. "I was somewhat of an introvert, but I was learning from people like Ken Dickson. I watched how those early boards operated, and I was very impressed."

Giesy was prevailed upon to run for the board in 1986, and the next year, he left East Lansing for a year's sabbatical at the University of Bayreuth in Germany. It was during his year in Europe that Giesy laid the groundwork for the creation of SETAC-Europe.

"I briefed the board on environmental toxicology in Europe," Giesy said. "They asked me to contact the key people in Europe."

That list of key people included Nico de Oude, Peter Calow, Renato Baudo, John Solbé, and Peter Hansen. "It was all of the first five SETAC-Europe presidents," Giesy explained. "I'd ring them up, hop on a train, and go meet them. I vividly remember how Peter Hansen walked out of the fog beneath the radio tower in Berlin at midnight to meet me."

Giesy ran for the SETAC presidency in 1990, never expecting to win. He did. "I went, 'Oh s***, what am I going to do now?'" Giesy recalled. "I called my predecessor, Rod Parrish. I said, 'I don't know how to do this.' Rod said he felt exactly the same way when he took over as president. We talked on the phone once or twice a week thereafter. I learned the ropes with Rodney."

During Giesy's presidency, the Society took the enormous step of deciding to manage itself. SETAC had been managed by IMG, a management group in Washington DC, and Giesy and others on the board felt that the Society could take control of its own destiny. Finally, Giesy was president when the board decided to hire Rod Parrish as the Society's executive director. "My major contribution to SETAC was being a part of hiring Rod Parrish," Giesy said. "Rod Parrish is the heart and soul of SETAC."

SETAC-Europe Founding President and later Executive Director Nic de Oude

The following excerpt from Dickson's speech explains the Society's need for global expansion:

> *While we have quite a few dedicated loyal members around the world, SETAC is predominantly a North American professional society. However, the idea behind SETAC and its goals are universal. I asked John Geisy (Michigan State University), Nic de Oude (Procter & Gamble in Brussels), and Chris Lee (Unilever in the United Kingdom) to assess the best mechanism to make SETAC a truly international society.*
>
> *. . . [T]hey presented to the Board a plan for establishing a sister society called SETAC-Europe. The Board endorsed the concept in principle. . . . There is a feeling among our European colleagues that now is the time to establish a formal SETAC presence in Europe with the same name and basic goals as our Society.*
>
> *The new SETAC-Europe would . . . work together at every opportunity with a long-range goal of total amalgamation—that is, SETAC International.*

In March 1988, the SETAC-Europe Founding Committee, comprised of Renato Baudo, Peter Calow, Norman Crossland, Peter Greig-Smith, Peter-Diedrich Hansen, O. Hutzinger, H. Könemann, Nic de Oude, M Smies, Anders Södergren, and Nico Van Straalen, was formed. The SETAC Board of Directors in North America subsequently formed the World Task Force to support and assist the Founding Committee. In May 1988, Bill Bishop, John Giesy, Jim Fava, Ken Dickson, Chris Lee, and Nic de Oude presented guidelines for the formation of SETAC-Europe to the Executive Committee.

A draft constitution was prepared, and by May 1989, the SETAC-Europe Council was formed. After overcoming obstacles, the Council held the Founding Meeting of SETAC-Europe in Sheffield, UK, 7 through 10 April 1991. More than 600 attendees from 25 countries welcomed SETAC-Europe.

The Batley Man and the Youthful Ward: SETAC Asia/Pacific

After SETAC-Europe was established, the Long-Range Planning Committee (LRPC), chaired by Rod Parrish, met in January 1989 to discuss the future of the Society. In a feature *SETAC News*, the late Chris Lee noted the following:

> *With the formation of SETAC-Europe, SETAC now covers the environmental interests of 600 million people. Good reason, with growing scientific and technical community in environmental sciences and the global nature of many environmental problems, to consider how SETAC will meet the challenge.*
>
> *. . . The international expansion of SETAC into a global federation struck a chord in many. SETAC-Europe has been formed, and thoughts now turn to a Pacific Rim and Japan and the development of an outreach program for Third World countries.*

The push for an Asia/Pacific unit of SETAC began in the early 1990s. Led by two SETAC members from Australia, Graeme Batley and Trevor Ward, members from the Asia/Pacific region met at the SETAC Twelfth Annual Meeting in Seattle, Washington, in 1991 and eventually at subsequent annual meetings. With support from Executive Director Rod Parrish, a 1994 planning session at the Fifteenth Annual Meeting in Denver, Colorado, helped the development of SETAC Asia/Pacific gain momentum:

> *About 30 SETAC members . . . agreed there was a need for an international SETAC organization to cover the Asia/Pacific region. It was decided that a small interim board be appointed to plan and oversee the development of the proposed SETAC Asia/Pacific. The group would be established in accordance with the guidelines for SETAC Continental Units, but otherwise would be an independent organization adhering to the SETAC goals and objectives.*
>
> *Geographic focus is expected to range from Japan in the north to New Zealand in the south, and include South Pacific Forum nations. Like all SETAC organizations, membership is not geographically limited, and SETAC Asia/Pacific will welcome members resident anywhere.*

Plans were included to launch the concept at a SETAC co-sponsored international meeting on environmental chemistry and toxicology (InterSECT '96) held in Sydney, Australia, in July 1996. This was further discussed and endorsed at the SETAC Second World Congress in Vancouver in November 1995, and in 1996 at the Sydney meet-

Graeme Batley

SETAC Profile: Graeme Batley

On 6 October 1993, SETAC Executive Director Rod Parrish responded to a request from Graeme Batley for SETAC to participate in a joint conference in Australia under the auspices of the Society and the Royal Australian Chemical Institute (RACI).

Parrish "pledged the support of this office in organizing, coordinating, and publicizing the meeting," which was all the encouragement Batley needed to begin planning what would become the first meeting of SETAC Asia/Pacific in Sydney .

Batley, like many of his colleagues in ecotoxicology and environmental chemistry Down Under, had been searching for a scientific society to represent his interests. A native of New South Wales, Batley completed his undergraduate and graduate work at the University of New South Wales. Following the award of a doctor of philosophy degree in 1967, Batley spent two years at University of Illinois and was then employed by the Chemical Technology Division, Australian Atomic Energy Commission, where he would spend the next 12 years. In 1981, he joined Australia's government research organization CSIRO, in their Energy Technology Division, where he now serves as chief research scientist and Director of their Centre for Environmental Contaminants Research.

In 1991, Trevor Ward, an Australian colleague, convinced Batley to attend SETAC's annual conference in Seattle. Batley recalled meeting with 10 other scientists from Australia, New Zealand and Asia, all of whom were interested in forming a chapter of the Society. Ward talked to Executive Director Rod Parrish about some type of affiliation, Batley explained, "but nothing ever really happened."

In 1993, Batley took matters in his own hands and wrote Parrish, offering to run a joint conference with the Royal Australian Chemical Institute in Australia. That conference, which took place in Sydney, was the inaugural planning committee meeting for what would become SETAC Asia/Pacific. In Vancouver in 1995, Batley made a presentation to the SETAC board of directors. SETAC gave the Australian the approval to go ahead with formation of an official geographic unit of the Society.

In July 1996, the Australian group sponsored InterSECT 96 and held an organizational meeting for SETAC Asia/Pacific in Sydney. At the meeting, Graeme Batley was named the Asia/Pacific Society's first president, a position he would hold until 2002. Batley then presided over preparation of a constitution and bylaws, which were officially approved by the full SETAC board in 1997.

Batley and colleagues in Australia, New Zealand, Malaysia, Korea, Japan, Singapore, Thailand, and dozens of other countries scattered across a half dozen time zones had found a scientific society to serve their needs.

"SETAC Asia/Pacific looks like it has arrived at a stage where it is flying of its own accord," Batley said. "Generally, it has been pretty successful. The global concept of SETAC has taken off. It is appropriate that we set up Asia/Pacific at the time we did."

SETAC member Graeme Batley and meeting coordinator Margaret Burchett at InterSect '96

ing, a Foundation Meeting was held, and an Executive Committee was elected comprising Graeme Batley, President; Shinsuke Tanabe, Vice President; Eun Namkung, Secretary; Yong Hwa Kim; Abdul Manan Mat Jais; Chris Hickey; and Dai Shu Gui. Soon, the constitution and bylaws were prepared and submitted to the SETAC North America Board, and SETAC Asia/Pacific was officially included as a geographic unit of SETAC in 1997.

At the First SETAC World Congress in Lisbon in 1993, a delegation from Brazil met with SETAC President Ron Kendall and Executive Director Rod Parrish about the possible formation of a geographic unit in South America.

South of the Border: SETAC Latin America

Environmental scientists in South America became interested in the Society in the early 1990s. While initially interest primarily came from the academic sector, individuals from the business/industry sector soon became involved.

In 1995, with growing interest for a geographic unit in Latin America, SETAC member Markus Meier helped form an ad hoc committee to explore establishing SETAC Latin America. The committee met at the SETAC North America annual meeting in Washington DC in 1996 to review progress and identify objectives for the coming year.

The support of SETAC North America was key to the development of SETAC Latin America. Programs included a journal donation project, a sponsored membership program, support for development of regional short courses, and financial support for travel to North America annual meetings.

In November 1996, the ad hoc committee completed Spanish and Portuguese versions of the SETAC membership brochure. The North America Board of Directors approved a 50% discount on membership in Latin America, and agreed to send representatives to regional scientific conferences.

Individuals who worked to develop SETAC Latin America included Jorge Herkovits and Peter Daniel in Argentina; Eduardo Bertoletti and Afonso Bainy, Brazil; Juan Correa, Chile; Lilia Albert, Mexico; and Pablo Cardinale, Venezuela. Ricardo Mastroti and Denis Abessa were later important workers in Brazil, as well.

Chapters were formed in Argentina and Brazil, and numerous scientific conferences have been held successfully in both countries.

SETAC Latin America President Jorge Herkovits

Going Global: The SETAC World Council

One of the conditions for establishing a sister society in Europe was to have an international organization within three years. After the founding of SETAC-Europe, the SETAC World Task Force, also known as the Internationalization Task Force, was soon charged with resolving issues related to the development of a SETAC global organization. The SETAC North America Board of Directors and the SETAC-Europe Council saw a need to provide guidance regarding the internal conduct of both (and future) geographic units. Consisting of members from SETAC North America and SETAC-Europe, the World Task Force met at the Eleventh Annual Meeting in 1990 to discuss global coordination of SETAC activities, including publications, meetings, and education. It also proposed possible structures for the global organization. At the Twelfth Annual Meeting in 1991, the World Task Force set the following year as a goal to establish a global organization.

The World Task Force met again in March 1992 to continue the discussion on international communication and

Ken Dickson

SETAC Profile: Ken Dickson

Ken Dickson attended SETAC's First Annual Meeting in Arlington, Virginia, in 1980. Since then, the Society's 1986-1987 president has missed only one SETAC annual meeting. "I was unable to attend the year my father died," Dickson said.

A native of Jacksboro, Texas, near Wichita Falls, Dickson received his Bachelor of Science degree in education and Master of Science degree in biology from North Texas State University in Denton. While at North Texas State, he studied under Gwynn Silvey, who encouraged him to pursue a master's degree and then suggested he talk to John Cairns about a doctorate. Cairns was at the University of Kansas but moved to Virginia Polytechnic and State University (VPI) for his doctorate. About that time, Dickson also decided to get his doctorate and followed Cairns east to Virginia.

"John had done a lot of work on water pollution and applied toxicology," Dickson said. "That's how I first got involved in ecotoxicology. Much of my study concerned the impacts of toxins on aquatic organisms."

Dickson earned his doctorate in zoology at VPI in 1971. During the next seven years, he was a faculty member in the biological sciences department at VPI and also served as the assistant director of the university's Center for Environmental Studies. It was a heady time for aquatic zoologists. Congress passed a host of environmental legislation in the early 1970s, including the Toxic Substances Control Act of 1972. Dickson evaluated chemicals and their effects on aquatic organisms, and through his research work, he was introduced to Al Maki and the Pellston Workshops.

"Al Maki was a true visionary," Dickson said. "He had the vision to get diverse people to the table at the Pellston Workshops."

In 1978, Dickson returned to North Texas State and joined the faculty as a research scientist in the university's Institute of Applied Sciences (IAS). The next year, Dickson was named director of IAS and a professor of biological sciences at North Texas State.

In the early 1980s, Dickson made SETAC "my Society of major interest. I heard about it through the network of aquatic toxicologists. I've been involved in SETAC since its origins." During the 1980s, Dickson and some of his graduate students would pack a van each fall and drive to the SETAC annual conference, usually in the Washington DC area. In 1984, he was elected to the board of directors, and he served as the Society's president from 1986 through 1987.

"I had a great time as president," Dickson noted. "It was a much easier Society to manage back then than it is for presidents now. The biggest issue was moving what had been a voluntary organization to professional management. I helped get us on the road to the present type of management structure."

Another big issue for Dickson was shaping the initial debate about the internationalization of SETAC. "We were trying to encourage and support global thinking. Mostly, we were dreaming and scheming about SETAC as a worldwide organization. It's heartening to see all the growth from an international perspective since then."

One of the great attractions of the Society for Dickson has always been the people he has met. "Gene Kenaga was one of those people who was able to integrate lots of data, study the results, and look for key findings," Dickson said. "He was a gentleman, just a wonderful individual. Rich Kimerle was another one. He was a wonderful contributor to the science. I've grown up professionally with a lot of these people."

After completing his term as president, Dickson has remained close to SETAC. "I love going to the meetings," he said. "I love the people, and I enjoy the science. It's sort of like a family. It's more than a professional society."

In 2004, he was asked to chair the search committee seeking a replacement for Executive Director Rod Parrish. "Rod is an original," Dickson said. "Trying to find a clone of Rod is impossible. What we are trying to do is find somebody with his attributes, a good manager with a concern for the science."

coordination, management and economics, and organizational models for international development. With overwhelming approval from SETAC members in North America and Europe, the formation of the International Council of SETAC (ICS) was endorsed at a June meeting by the SETAC Board of Directors and SETAC-Europe Council. The purpose of the ICS would be "to promote international communication and cooperation among member organizations and with related organizations in order to encourage understanding of environmental issues and their resolution through research and education." Members would be elected to the ICS, which would replace the World Task Force by September 1992.

The ICS had the following objectives:

- Provide guidance on SETAC philosophy and principles to Member Organizations
- Aid the establishment of new Member Organizations
- Establish links with key national and international organizations that have similar scientific and educational interests
- Advance the policies that encourage cooperation among SETAC groups at all levels
- Promote international research and education
- Support the integrated use of environmental sciences in understanding and resolving environmental issues
- Establish links with international legislative and regulatory authorities on the environment
- Promote communication in the environmental sciences

In 2000, Elaine Dorward-King, SETAC North America Past-President, and Norbert Scholz, SETAC-Europe President, explained the move toward a governing body in the first issue of the *SETAC Globe*:

> *The ICS at present is the policy coordination body consisting of the officers of SETAC North America and SETAC-Europe.*
>
> *It is envisaged that primary responsibility and authority for items of global significance will move to a global governing body that will replace the ICS and have direct authority to set and implement policy. This body is temporarily referred to as SETAC World Council (SWC). The SWC is intended to ensure consistent quality and delivery of member services worldwide. The SWC will have authority over global issues, such as publications, communications, and World Congresses, and will set the levy for administration and delivery of global functions*.

Discussions and meetings continued and resulted in a plan for the organization of the SWC, which would consist of 15 elected representatives. By the end of 2001, the constitution and bylaws were approved by the SETAC membership, and SETAC adopted the new organizational structure in January 2002. Lorraine Maltby became the SWC's first President; Jeff Foran was Vice President; and Kevin Reinert was Treasurer. The SWC continues to govern the SETAC geographic units.

2002-2003 SETAC World Council officers, Jeff Foran (Vice President), Lorraine Maltby (President), and Kevin Reinert (Treasurer)

Lorraine Maltby

2002 SETAC World Council President's Report

On January 1, 2003, the Society of Environmental Toxicology and Chemistry(SETAC) celebrated its first anniversary as a truly global society. Like any newborn, SETAC faced many new challenges and opportunities during its first year, but through the wisdom and commitment of the SETAC World Council, and the hard work and dedication of the SETAC staff in the Pensacola and Brussels offices, these were successfully met and the Society is in a strong position to grow and develop further. I would like to take this opportunity to share with you some of the highlights of this first year but before I do, a few words about the development of our new Society.

The gestation period for the global SETAC was long, and at times, painful. SETAC publishes an excellent international journal, *Environmental Toxicology and Chemistry*, and has held annual international meetings in North America (since 1979) and Europe (since 1989); however, prior to 2002 there were in fact four sister societies: SETAC North America, SETAC Europe, SETAC Asia/Pacific, and SETAC Latin America. The task for the Society leaders was to conjoin these four organizations into a single entity, while maintaining cultural diversity and representation. Many people played an important role in making the global society a reality, including the incumbent Presidents of SETAC North America (Elaine Dorward-King, John Rodgers, Mark Servos), SETAC Europe (Toni Ratte, Norbert Scholz, Betty Bügel-Mogenson), and SETAC Asia/Pacific (Graeme Batley). However, I would particularly like to thank Mark Servos for so astutely steering the Society through the transition period.

All the hard work and dedication paid off when in autumn 2001, members in each of the four sister societies approved new constitutions and bylaws and the global Society was formed on January 1, 2002. It was my great honour to be elected the first President of the global SETAC. The last 12 months have at times been tiring and challenging, but overall my Presidential year has been exciting and extremely rewarding. The Vice-President (Jeff Foran), the Treasurer (Kevin Reinert), the Executive Director (Rod Parrish), and the other members of the SETAC World Council (SWC), have been a great support to me during the year and I would like to express my thanks to them all.

The SWC met for the first time in February at Pensacola, Florida. I was delighted to see how well this group of people worked together and how motivated everyone was to make SETAC a truly global society. Much our discussion at that meeting focused on outreach, both to different sectors/disciplines and to different regions of the world. There was an acknowledgment that the regions experiencing some of the greatest environmental problems and where SETAC could play a major role in knowledge transfer and facilitating discussion between government, business, and academia are, on the whole, those countries in which economic circumstances make it difficult for individuals and organisations to participate in our Society. There is a clear challenge for us to enable greater participation of environmental scientists and practitioners in developing countries in SETAC.

To this end, the SWC approved a discounted membership rate for residents of 153 countries, and the Membership and Library Subscription Grant scheme, previously operated by SNA, will be transferred to the SWC starting in 2003 (see www.setac.org for further details). One of the major challenges faced by colleagues in developing countries is funding travel to international meetings. Kelly Munkittrick (Chair of the International Programmes Committee), supported by Rod Parrish and Greg Schiefer, have worked hard this year to try establish a Travel Fund based on the donation of air miles. This is far from straightforward and progress is slow. However, this is potentially a major resource and provides a way in which members of the Society can directly help colleagues that are less fortunate than themselves, so we will not give up. Attendance at SETAC meetings provides a unique and important opportunity for training and information transfer. If it is not possible for environmental scientists and policy makers in developing countries to attend meeting and training courses in Europe or North America, then why not take the courses to them or run e-conferences? The SWC is considering the establishment of training courses that can be given in developing countries as well as the use of the Web to host electronic presentations as part of a SETAC meeting. These are all exciting areas of development that require volunteers and sponsorship. If you are interested in any of the above please contact me—I would love to hear from you!

(continued on next page)

(2002 SWC President's Report continued from previous page)

Other major activities this year include the launch of the UNEP/SETAC Life-Cycle Initiative (http://www.uneptie.org/pc/sustain/lca/background.htm). The initiative was launched at the UNEP 7th High-Level Seminar on Cleaner Production, which was held in Prague in April. The society also hosted international meetings in Europe (Vienna, Austria, May), Latin America (Vitória, Brazil, October), and North America (Salt Lake City, Utah, November). The SWC met at both the SETAC Europe and SETAC North America annual meetings. Both SWC meetings were extremely productive, and at the November meeting, the SWC approved several important activities including the move towards an electronic newsletter and the availability of all back issues of *Environmental Toxicology and Chemistry* on line. However, most important were the approval of Donald Mackay as an Emeritus Member of SETAC and the approval of a new journal, *Integrated Environmental Assessment and Management*. This new journal will provide a forum for some existing sections of our society (e.g., LCA and ERA) but will also provide an opportunity to broaden our society by including economic and social aspects of environmental protection.

Over the last 12 months we have begun to address the challenge identified at the beginning of the year of reaching out to different sectors and regions by approving a new journal and by considering ways in which we can empower and facilitate the involvement of colleagues in developing countries. A new branch of SETAC Europe is to be officially launched in Africa in January, and elections are currently underway for the founding board of SETAC Latin America. However, this process has only just started, and we need to progress these developments over the coming years. To do this we need your support, enthusiasm, and ideas—please help in whatever way you can.

May I take this opportunity to thank all SETAC members for supporting our Society over the last 12 months and to wish you a peaceful 2003. It is now my pleasure to hand over the society to the new President, Jeff Foran, and Vice-President, Chris Hickey. I am sure they will continue the excellent progress we have made to date and will strive to make our great Society even better.

Lorraine Maltby
President SETAC, 2002

LOOKING BACK AND FORWARD

To Infinity and Beyond

There is no doubt that the Society of Environmental Toxicology and Chemistry (SETAC) has come a long way since its founding. Pioneering a society, starting two journals, establishing regional chapters, founding sister societies around the world, and continuing to be highly regarded in scientific communities all around the globe is no small feat. The formation of other geographic units and branches and the establishment of the SETAC World Council reveals a society still moving forward in its golden era. And while the Society expands, those dedicated pioneers and members who laid a solid foundation for the Society continue to inspire current and future Arismans, Tuckers, Makis, and Kenagas.

Don't Touch That Dial

Stay tuned for a follow up to this brief overview of SETAC's humble beginnings. *A History of SETAC Part II* will be published in 2005.

Society of Environmental Toxicology and Chemistry (SETAC®)

www.setac.org

SETAC, with offices currently in Europe and North America, is a not-for-profit, global professional society established to provide a forum for individuals and institutions engaged in the study, analysis, and solution of environmental problems, management and regulation of natural resources, education, and research and development.

Specific objectives of the society are to

- Promote research, education, communication, and training in the environmental sciences.
- Promote the application of interdisciplinary environmental sciences in managing chemicals and other stressors.
- Participate in the scientific interpretation and communication of exposure to and effects of environmental stressors, ecological risk assessment and management, life-cycle assessment and management, and solutions for global environmental problems.
- Provide forums for communication and interaction among environmental professionals on a multisector, interdisciplinary, and multinational basis.
- Promote the development of principles and practices for sustainable environments, considering appropriate ecological, economic, and social aspects.

These goals are pursued through the conduct of numerous activities, which include

- Holding annual meetings in each of 4 Geographic Units (Asia/Pacific, Europe, Latin America, and North America) composed of study and workshop sessions, platform and poster presentations, and achievement and merit awards.
- Sponsoring scientific journals, a newsletter, and technical publications.
- Providing funds for education and training through scholarship and fellowship programs.
- Organizing and sponsoring chapters to provide a forum for the presentation of scientific data and for the interchange and study of information about local and regional concerns.
- Providing information to technical and nontechnical persons about scientific issues through a number of standing and ad hoc committees.

SETAC membership comprises nearly 5,000 individuals in 70 countries who work in academia, business, government, and nongovernment organizations, with technical backgrounds in chemistry, toxicology, biology, ecology, atmospheric sciences, health sciences, earth sciences, life-cycle assessment, risk assessment, and engineering. If you have training in these or related disciplines and are engaged in the study, use, or management of environmental resources, SETAC can fulfill your professional needs.

Applicants for SETAC membership must share the Society's purpose, pay annual dues, and meet the criteria in one or more of these categories:

Member (Student's dues are discounted). Members and Associate Members may qualify for student-discounted dues if their primary activity is pursuit of an academic curriculum leading toward a degree related to the Society's stated purpose. If you are fully employed in a professional capacity, you do not qualify for the student discount. (A postdoctoral fellow is not considered a student.)

Member.

- Must have applied experience or education or have conducted research in areas related to the Society's stated purpose,
- Must hold a primary degree (e.g., B.Sc.) plus 3 years' experience, OR
- May be specially appointed by the SETAC World Council (SWC) upon recommendation from a Geographic Unit.

Associate Member. Must be engaged in activities leading toward meeting the education or experience requirements of a member.

Emeritus Member. Must be a member in good standing for 3 years, be recognized for service to the Society and the profession, and be approved by the SWC.

Sustaining Member. Must be a for-profit organization or individual that shares SETAC's purpose.

Affiliate Member. Must be a nonprofit organization or individual that shares SETAC's purpose.

All members have online access to *Environmental Toxicology and Chemistry* and *Integrated Environmental Assessment and Management*, peer-reviewed journals of the Society, and all members can opt for a printed version of the journals. All members receive *SETAC Globe*, the bimonthly newsletter that highlights environmental topics and SETAC activities, online or in print. Reduced registration fees for all SETAC meetings worldwide and deeply discounted prices on all SETAC publications are additional member benefits. Any member in good standing may hold office; all members constitute the voting membership of the Society.

Please fill out a membership application or, if you need further information, contact the appropriate SETAC Office.

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