

## Michael Irwin Cousens (1943–1990)



Flower in the crannied wall,  
I pluck you out of the crannies,  
I hold you here, root and all, in my hand,  
Little flower—but if I could understand  
What you are, root and all, and all in all,  
I should know what God and man is.

Alfred, Lord Tennyson

These are the words that started Michael Cousens on the Path of Botany. How this happened is a story Mike delighted to tell, and which I have repeated time countless, to encourage students who felt inhibited by their lack of “proper” background. Mike was a city boy from Detroit who grew up without any real contact with Nature. As an undergraduate at Eastern Michigan University he was an English major who disdained science and technological subjects. He was set on becoming a teacher of matters of the heart and soul. Finally he forced himself to sign up for a science class, reluctantly, only because it was a graduation requirement. He chose a botany class because it seemed to be the most painless, least demanding course to fulfill the requirement.

On the first session of class, Dr. Caswell stood at the front of the classroom with a potted plant beside him on the lectern. When the students settled down and became quiet, he seized the pot and threw it on the floor, shattering the pot and spattering pottery shards across the floor. He reached down and took up the plant and held it high in the air. With now rapt attention from the class, he recited Tennyson’s classic poem. Mike was stunned . . . and hooked. By the time the botany class was over, Mike’s life had changed and so had his major. He lost some time in the transition, but it was complete. He received his B.S. in Biology with a minor in Literature in 1966, along with a secondary education teaching certificate.

---

Mike went straight to Iowa State University to begin working on his M.S. under the direction of Harry T. Horner. Mike started working on fern gametophytes, studying sex expression in *Dryopteris ludoviciana*. His ability to closely follow gametophyte development became established. His graduate studies were interrupted by a year of teaching high school in Chicago, to earn money and permit his wife, Marlene, to complete her B.A. Mike received his M.S. in 1969 and published his first paper the next year in the American Fern Journal. It is notable that the last line of this paper states that such work, "must now be determined in the field."

Mike followed his own advice at Washington State University under Noe Higinbotham, aided by an NDEA fellowship. This time Mike took up *Blechnum spicant*, chosen because his first trip to the Olympic Mountains to look for gametophytes in the field turned up enormous patches of *Blechnum* gametophytes. When I joined Mike in Pullman, he was in the second year of his doctoral program. I was astounded that he had prepared a field key to gametophytes of the Olympic Peninsula. He taught me to watch for gametophytes and inspired me to switch from paleobotany to pteridology.

Mike's enthusiasm for field work was insatiable, partly because he had so little previous experience and it was a newly discovered passion. He lamented, on one of our trips to the Clearwater River in Idado, that he had never learned to build a camp fire. The lack of childhood outdoor experience, however, never impaired him in the least. In the words of Bob Lloyd, "Mike was an excellent field biologist. He spent a great deal of time on his hands and knees in the forest and he enjoyed it tremendously. He sent me a letter in 1987 in which he commented on the importance of gametophytes collected in the field and what it takes to find them . . .

*The most important thing you can do is to find gametophytes in nature. There is a special Zen to finding gametophytes—honestly. Let me try to help. First, you must be convinced that they are there."*

With the dissertation on *Blechnum* completed in 1973, Mike held a temporary one-year position at the University of Oregon before accepting a post at the University of West Florida in Pensacola. The UWF position was one dedicated to teaching teachers. Here, Mike blossomed. All of Mike's botanical colleagues noted the close rapport he had with his students. He could cram a van full of students and drive twelve hours nonstop to the Southeastern Fern Conference. They'd head off on field trips into the Appalachians that were not class requirements. They packed into a rented stationwagon and traveled half-way across the country to a Botanical Society meeting in Colorado, then stayed in a campground thirty miles from the meeting site to save expenses. During the breaks they discussed the presentations seriously, Mike participating as a peer and friend.

That was the secret which we all admired. The devotion Mike inspired came from the personal interaction he sustained. He was very patient with all his students, his office was open all day long, and he would listen whether the topic were academic or personal. He opened his home to them, and they felt he

---

opened his heart to them. They really liked him and therefore followed him loyally. During the thirteen years Mike was at UWF he supervised over a dozen master's projects. About one-half involved field studies of ferns, usually with gametophytes, paralleling Mike's own research interests.

Science education became Mike's forte, demonstrated in numerous ways. His course list in plant biology is incredible. He was the sole advisor for all teacher education students at UWF. He worked on curriculum committees, supervised student teachers, judged science fairs, organized student conferences, fired up the environmental club, and brought in large grants for science enrichment programs in public schools. The effort paid off. Mike was appointed Director of the Center Science Education at Weber State University (then College) in Ogden Utah. He was proud of that accomplishment; it seemed to give recognition to his abilities as an educator.

The pace of educational activities stepped up, if anything. He initiated a Science Information Hotline for Teachers. He established the S4 program: Science Seminar for Superior Students. He sponsored the Utah State Science Olympiad. He was the higher education representative for the State of Utah. He taught courses through the Botany Department, where he held faculty rank as Full Professor. On October 12, 1990, he was honored as Outstanding Science Educator For Higher Education by the Utah Science Teachers Association.

After three years at Weber State, Mike felt he had his position on a sound track and was reinvigorating his research program. Despite a work load that would stagger most research faculty, Mike's research program had never really lagged. In Florida he added *Lorinseria areolata* to his study subjects—it grew in his back yard swamp. Work with *Blechnum* and *Dryopteris* continued. *Lygodium japonicum* and *Dicranopteris flexuosa* also came under investigation. The work was always focused on autecological problems, life history strategies, coordinating field and experimental work. He also spent two summers doing ecological research on beach communities in the Gulf Islands National Seashore, sponsored by the National Park Service.

Most pteridologists knew Mike as a champion of gametophyte studies. He regularly delivered papers at national and regional meetings. He was most proud of the paper he read to the International Association of Pteridologists in Edinburgh in 1985: The gametophyte and the habitat—an experimental approach. To him, it marked the beginning of his sense that his work was having a significant impact on pteridophyte biology. His influence on the field is made most clear with the publication of this issue.

As impressive as Mike's work career has been, most of his colleagues' first thoughts about him were, "he was easy-going; he was easy to like." He had a warm, sunny disposition that came naturally, from the heart. His mind was complex and could take-off in unexpected directions, something that spilled over into his work with great profit. He also enjoyed life and filled it with pleasures. He sang and played instruments. He loved his motorcycle, and would think nothing of jumping on it and riding a hundred miles to get a fine doughnut.

It was clear to anybody who was around Mike for long that what was central to the joy in his life was his family. He married Marlene Rubin in 1966 and had

---

two children: Heidi, born in 1978, and Holly, born in 1980. Before the children were born, Marlene was along on field trips as often as not. They continued to do field work together. They shared a love and warmth that was inspiring to all who knew them.

#### BIBLIOGRAPHY

- COUSENS, M. I., and H. T. HORNER, JR. 1970. Gametophyte ontogeny and sex expression in *Dryopteris ludoviciana* Amer. Fern J. 60:13-27.
- . 1978. Stalking the wild gametophyte. Fiddlehead Forum 5(2).
- . 1979. Gametophyte ontogeny, sex expression, and genetic load as measures of population divergence in *Blechnum spicant*.
- . 1981. *Blechnum spicant*: Habitat and vigor of optimal, marginal and disjunct populations, and field observations of gametophytes. Bot. Gaz. 142:251-258.
- SHABICA, S. V., and M. I. COUSENS. 1983. Multiple beach use, does it work? A Case Study. Proc. Third Symposium on Coastal and Ocean Management. ASCE/San Diego, Ca.
- COUSENS, M. I., D. G. LACEY, and E. M. KELLY. 1985. Life history studies of ferns: A consideration of perspective. Proc. Roy. Soc. Edinburgh 86B:371-380.
- . 1987. Phytosociology and Hurricane Initiated Revegetation of Perdido Key, Gulf Islands National Seashore CX 500091259. Pp. 1-155. Final report to National Park Service.
- . 1988. Reproductive Strategies of Pteridophytes. Chapter 15, in J. and L. Lovett-Doust, eds. Plant Reproductive Ecology: Patterns and Strategies. Oxford Univ. Press.
- , D. G. LACEY, and J. M. SHELLER. 1988. Safe sites and the ecological life-history of *Lorinseria areolata*. Amer. J. Bot. 75:797-807.

David H. Wagner, Department of Biology, University of Oregon, Eugene, OR 97403.

Donations may be sent to the Dr. Michael Irwin Cousens Memorial Greenhouse Fund, Weber State University, Development Office, Ogden, Utah 84408-1008.