

Closing Plenary Session

Thursday, April 26th
10:30am - 12noon



Introducing...

The Golden Cattail Award!

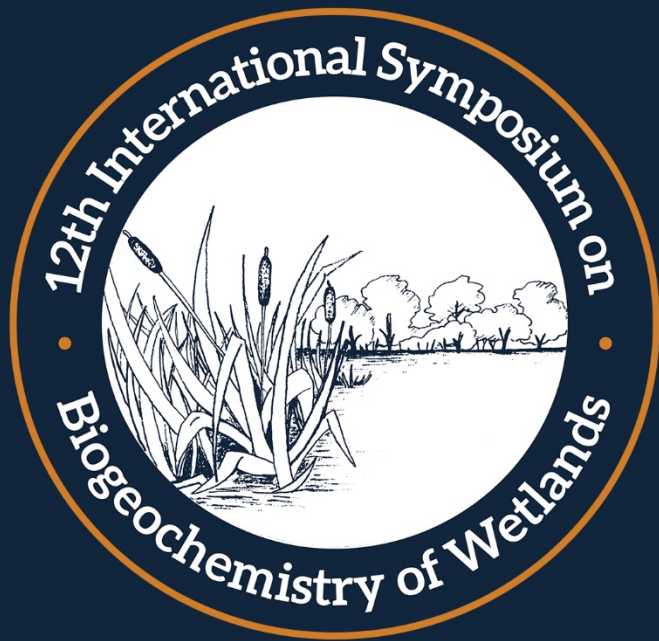
*for exceptional contributions to the
science of wetland biogeochemistry*





Congratulations to **Dr. K. Ramesh Reddy**

*Recipient of the 2018
Golden Cattail Award*



Sue Newman





Dr. K. Ramesh Reddy

Professor, Mentor & Friend

The University Years



**Newell Hall,
University of Florida**



Our Adventures in Panama



~~Our Adventures in Panama~~

We Almost Killed Ramesh!!



The Motley Crew

Stable Isotope Dosing
Experiment in WCA2A



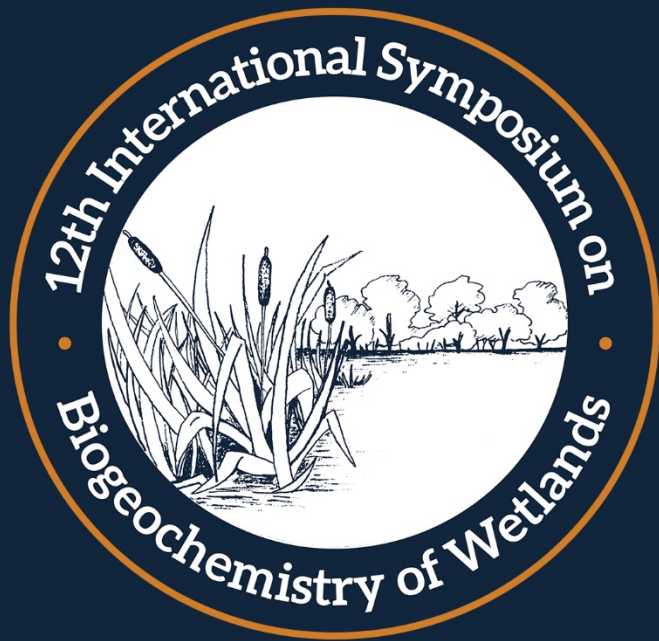
Walk
carefully!

Thank you Ramesh!

You lead by example, inspire, and challenge us.

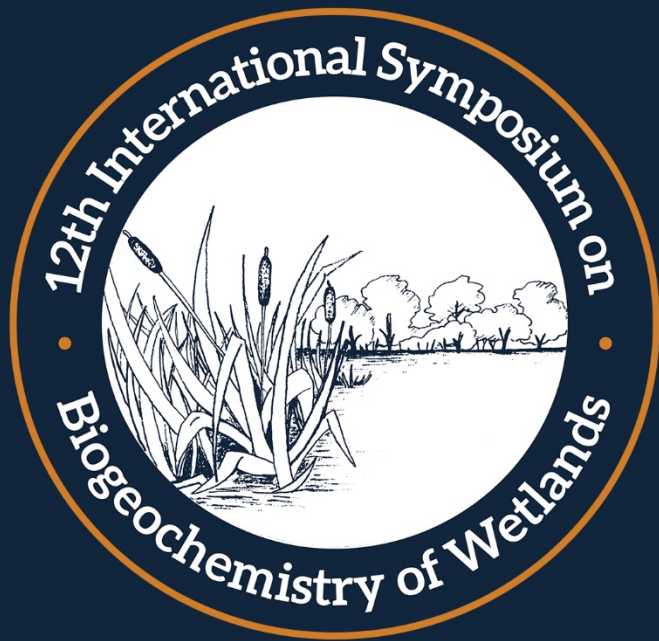
We are better scientists, and better people, for having known and worked with you.





Ron Corstanje





Mark Clark





Okeechobee 2005



Hyderabad, India 2014



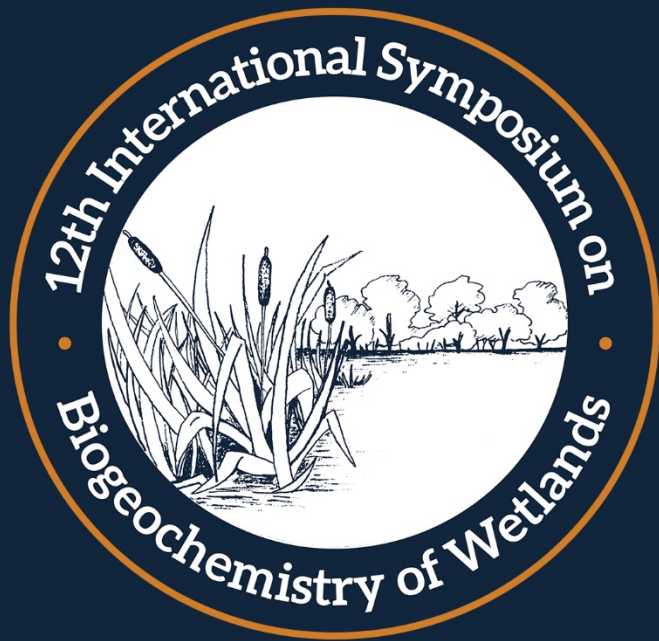
Okeechobee 2005



Hyderabad, India 2016

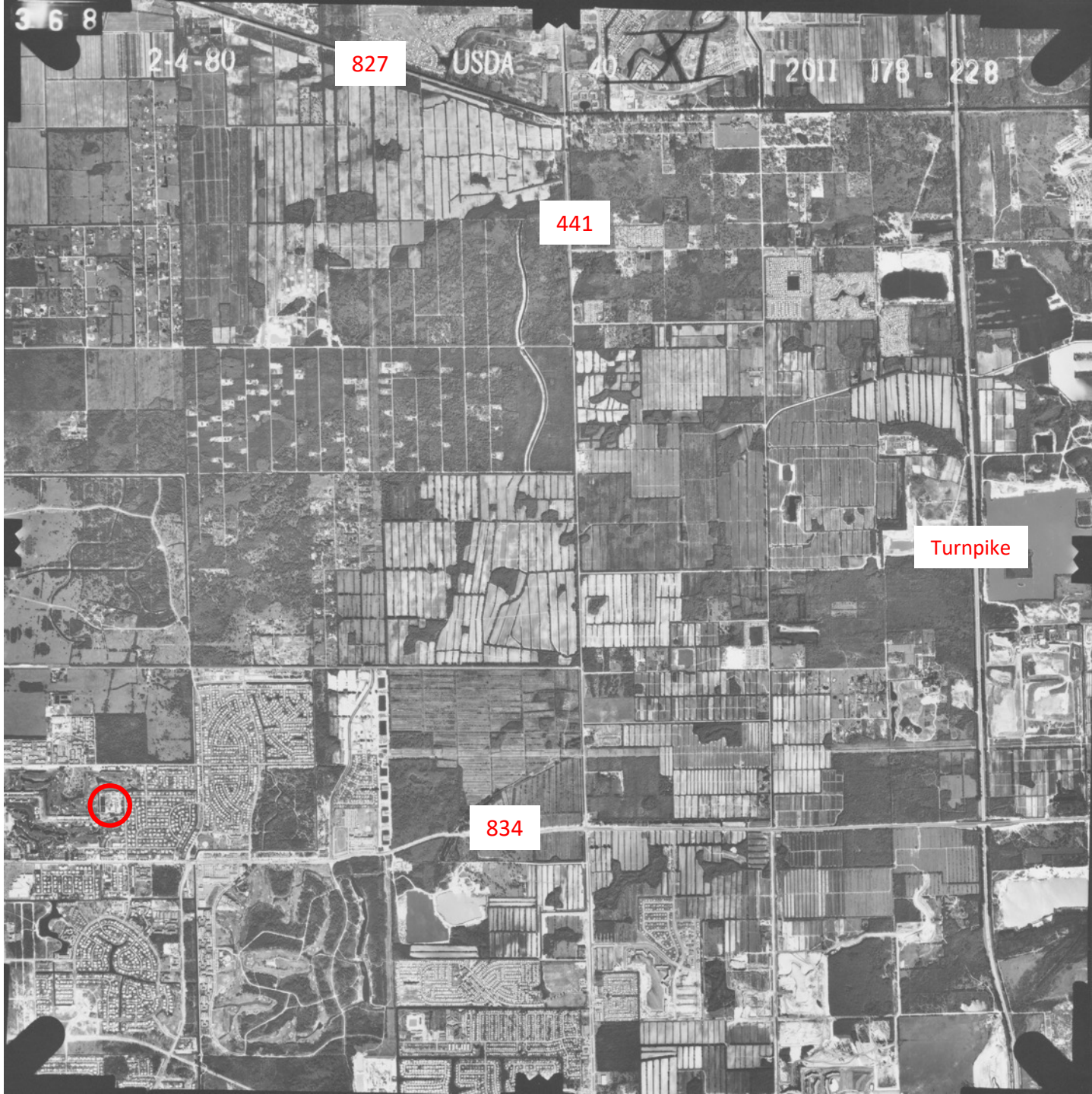


Ireland 2004



Tom DeBusk



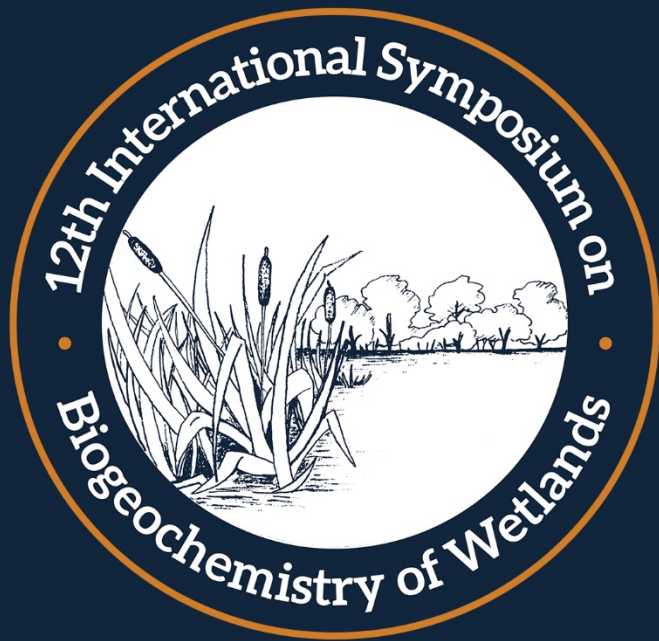












Curt Richardson

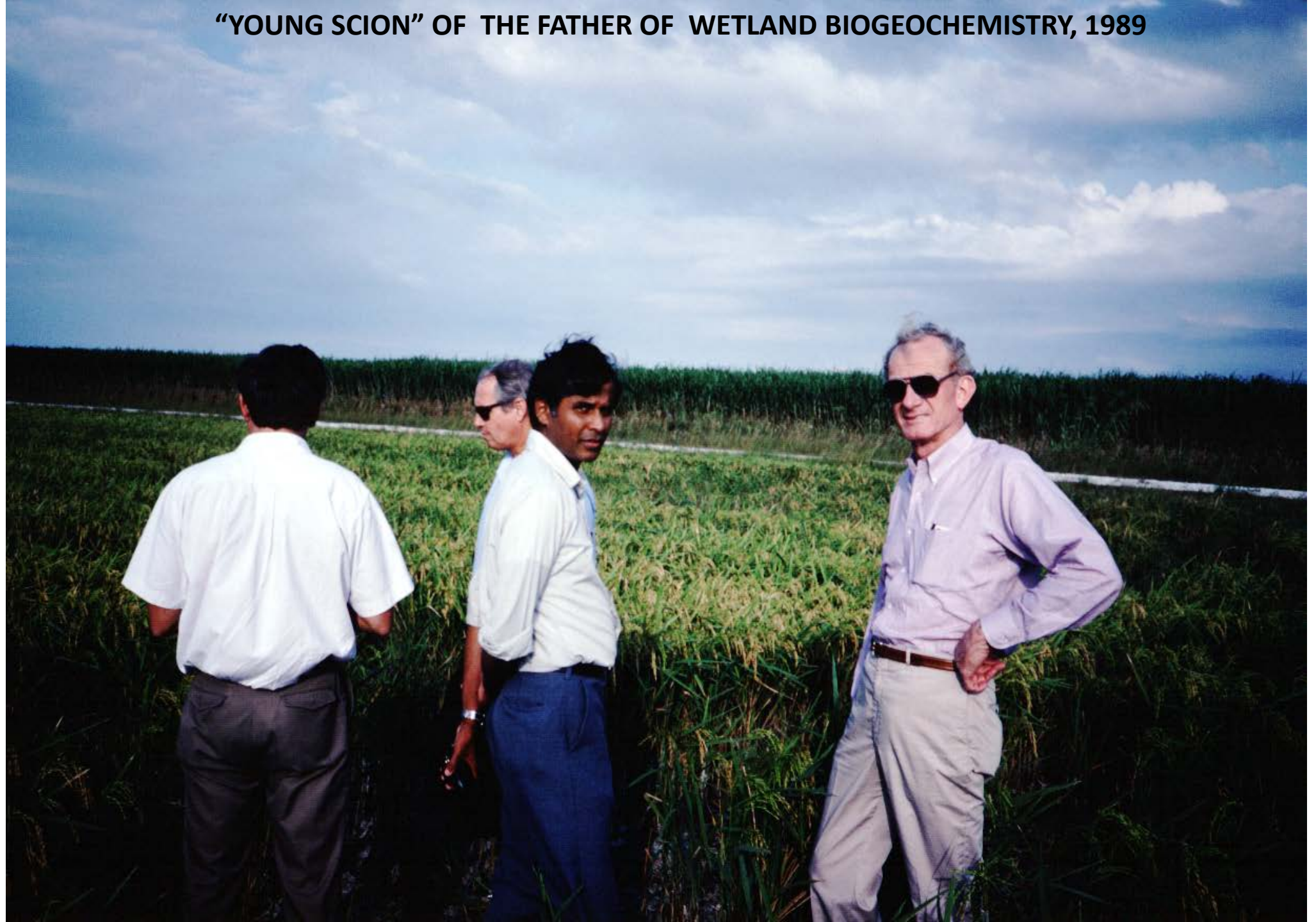


FATHER OF WETLAND BIOGEOCHEMISTRY



DR. WILLIAM (BILL) PATRICK JR. LSU

“YOUNG SCION” OF THE FATHER OF WETLAND BIOGEOCHEMISTRY, 1989



BILL GAVE RAMESH
INSTRUCTIONS
ON HOW TO DO
RESEARCH IN
PEATLANDS .

RULE 1: ALWAYS
RENT A HELICOPTER

RULE 2: NEVER
ATTEMPT TO WALK
INTO OR OUT OF A
LARGE WETLAND



A man with a beard and a red cap is sitting on a large, muddy log in a dense, swampy forest. He is wearing a light-colored, long-sleeved button-down shirt and light-colored pants. A blue fanny pack with the 'KYTRIL' logo is visible around his waist. His hands and arms are covered in mud. The background is filled with lush green foliage and tree trunks.

Bill Cooper, FSU

Panama, Swamp

**RAMESH AT THE
END OF
HIS JOURNEY INTO
BOCAS DEL
TORO PEATLANDS
IN PANAMA**

**WHERE IS THE
HELICOPTER ?**



**TRAINED HIM IN PEAT
SAMPLING
TECHNIQUES**

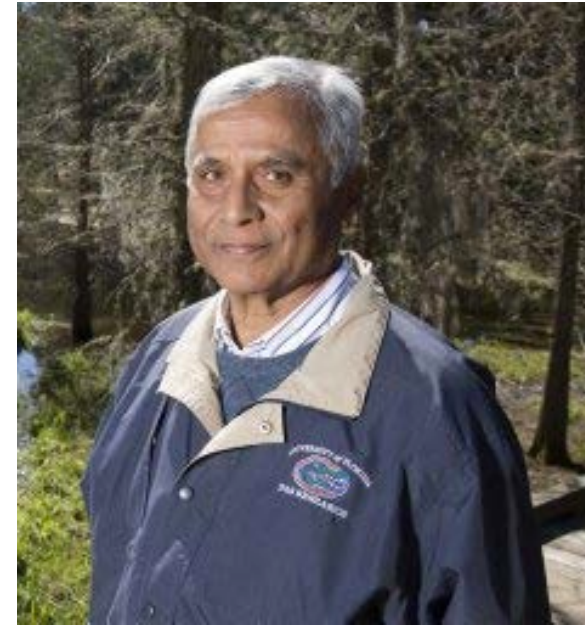
**ADVICE: IN BIOGEOCHEMISTRY
KNOW ABOUT ALL
CHEMICAL INTERACTIONS WELL
BEFORE DOING ANY
EXPERIMENT**





Google Scholar

All	Since 2013	
Citations	3	3
h-index	1	1
i10-index	0	0



EVALUATING THE BULLWHIP EFFECT ON UNRULY GRADUATE SOIL SCIENCE STUDENTS IN HARSH ENVIRONMENTS BY USING NEW STIMULATION TECHNIQUES.
K. R. REDDY, 2014. International Journal of Unknown Research 5 (7) Pg. 1-72.



K. Ramesh Reddy

FOLLOW

Cited by

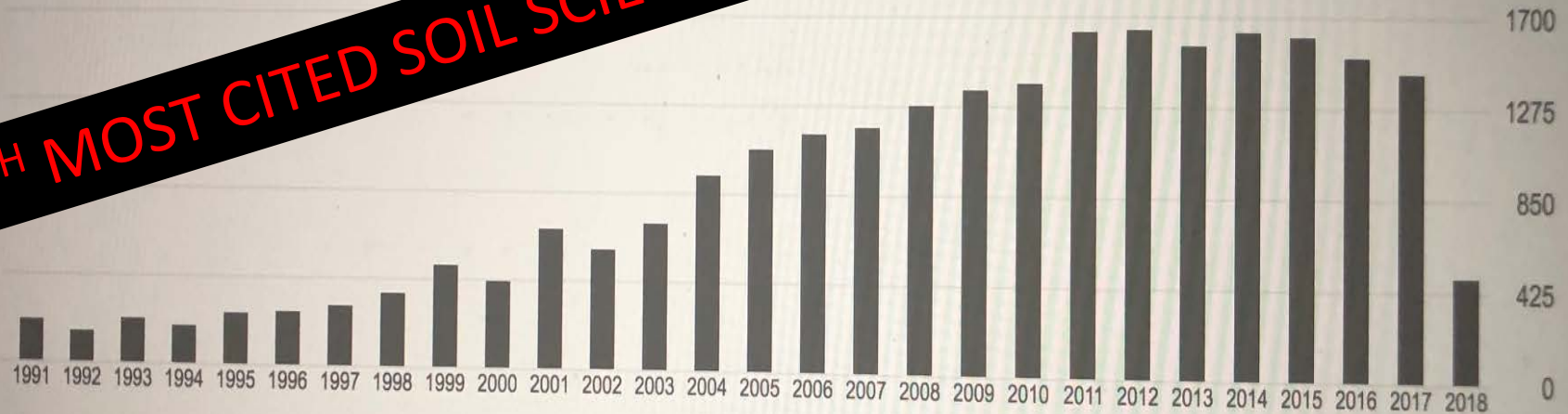
Graduate Research Professor, [University of Florida](#)

Verified email at ufl.edu

[Biogeochemistry](#) [Soil Science](#) [Wetlands and Aquatic Syst](#)

Citations per year

4TH MOST CITED SOIL SCIENTIST IN GOOGLE SCHOLARS



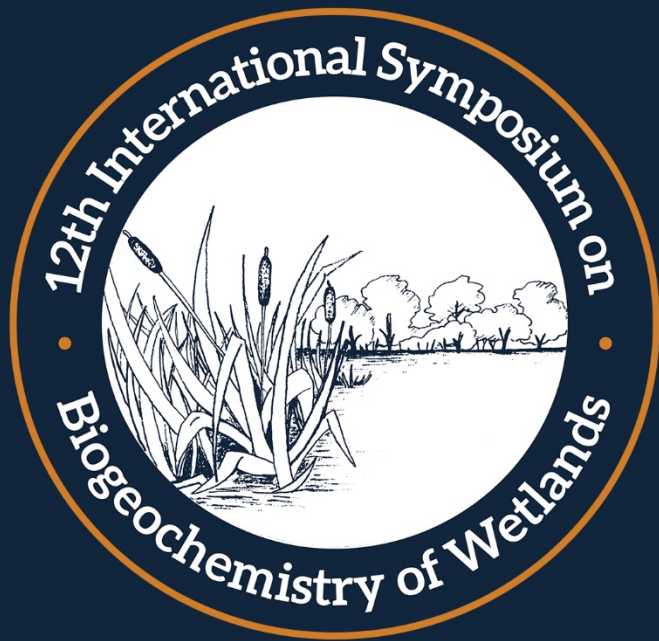


Ramesh joined the Party

Funding is Great

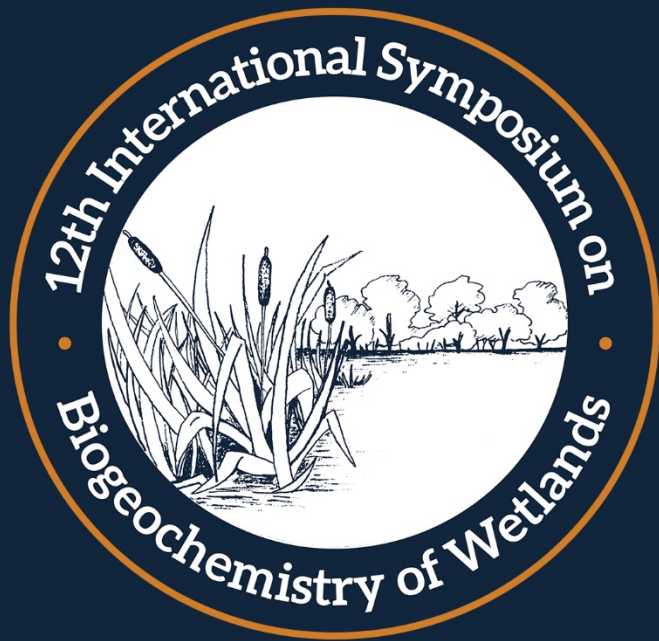






Len Scinto





Phillip Moore



The *Ramesh Effect* on my Career

Philip A. Moore Jr.
USDA/ARS
Fayetteville, AR

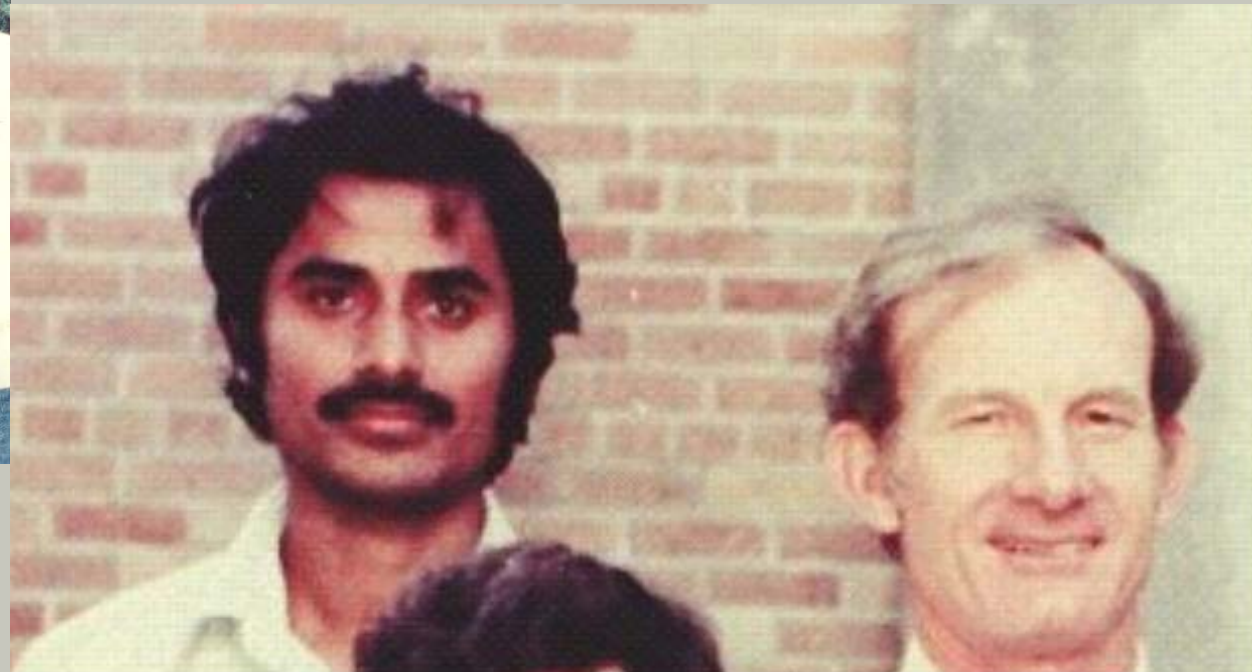
Wetland Biogeochemistry Conference
Coral Springs, FL
April 26th, 2018

Ramesh and I both worked with Bill Patrick



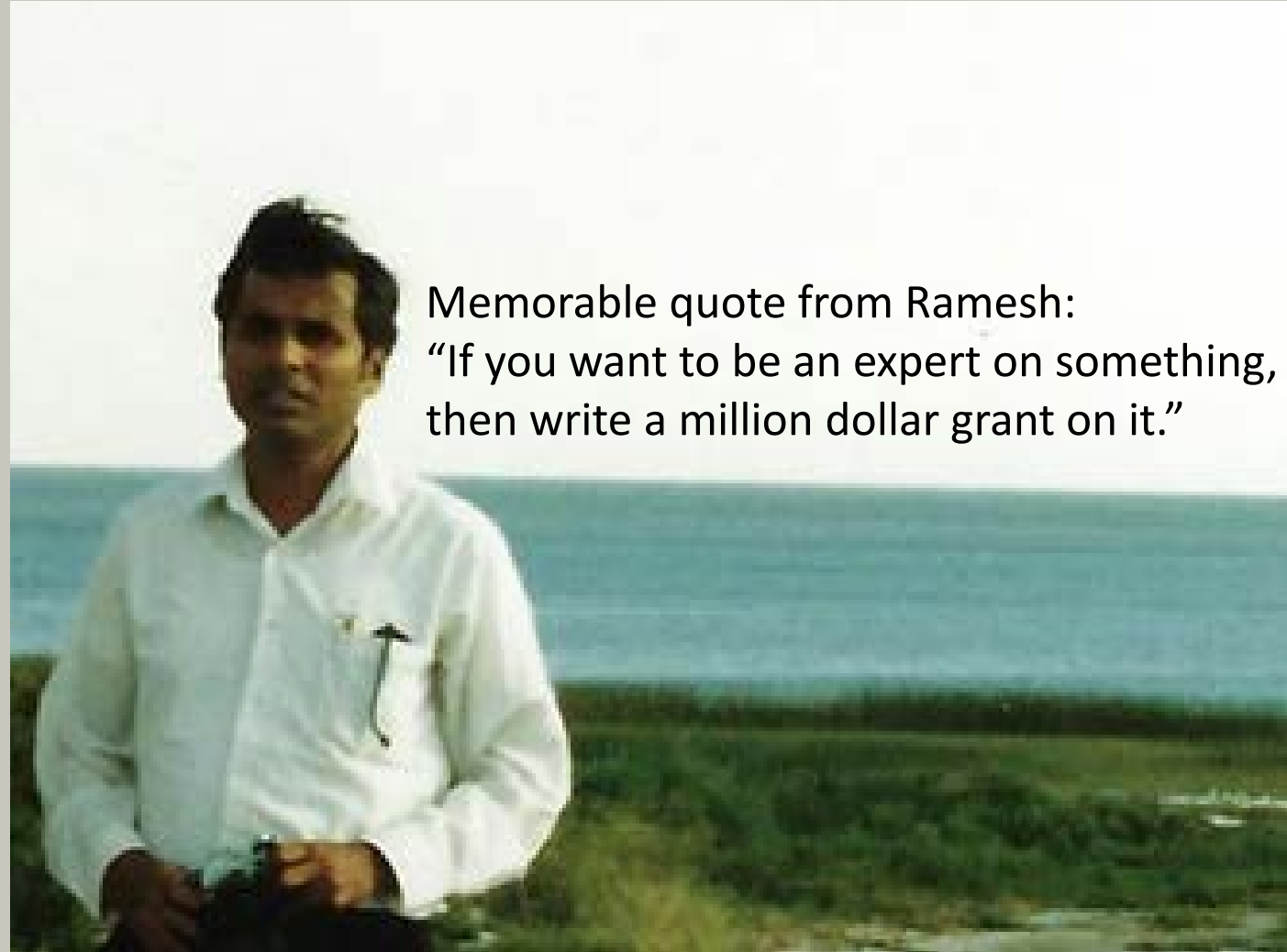
- ✓ Ramesh and I both did our Ph.D. under Bill Patrick at LSU in the Wetland Soils and Sediments Lab, which is now the Wetland Biogeochemistry Institute.
- ✓ Ramesh was there during the heyday of Patrick's career.

Ramesh and I both worked with Bill Patrick

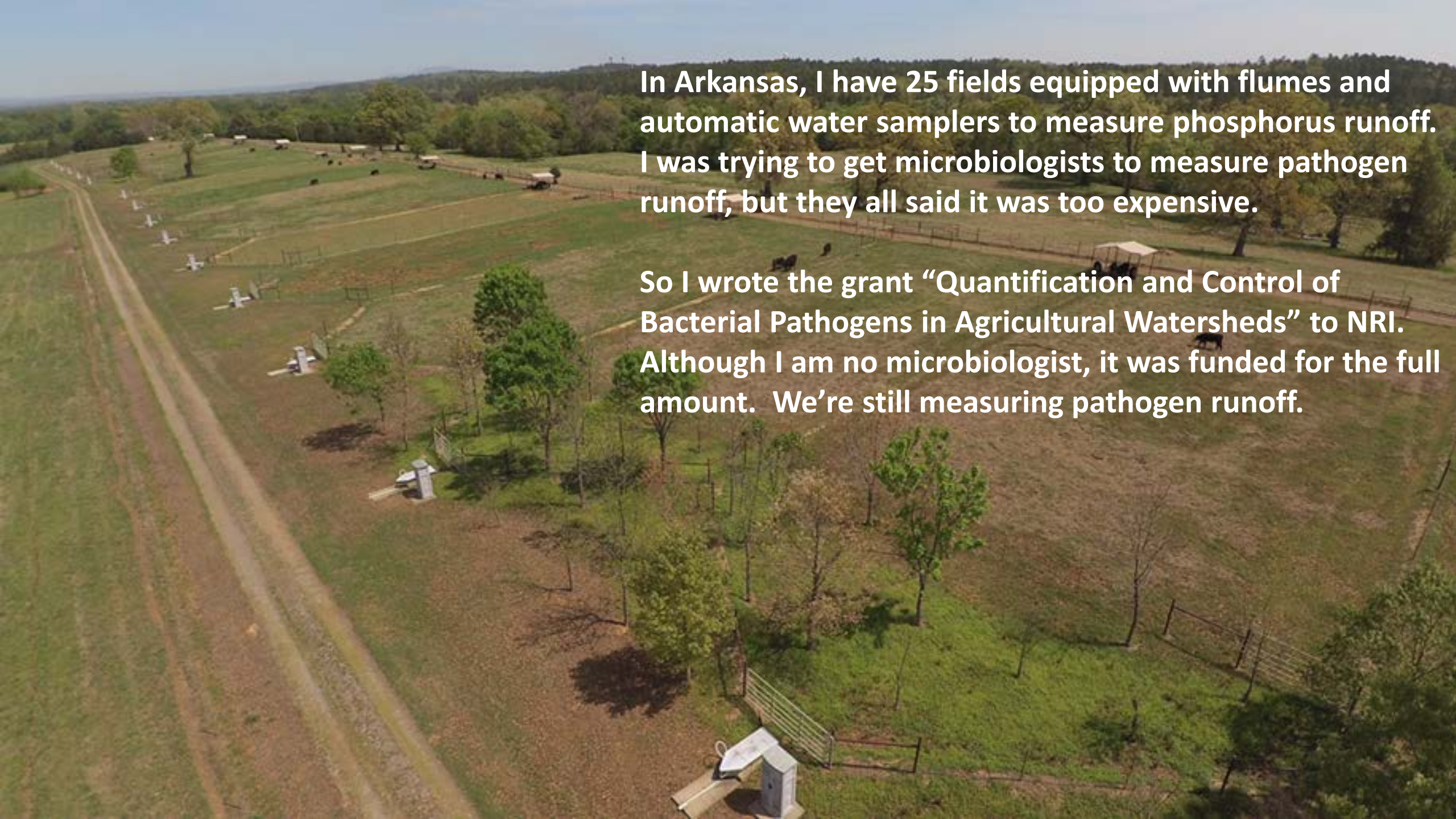


Ramesh gave me my first real job!

- ✓ **When I arrived in Gainesville and met with Ramesh the first time, he told me he wanted me to work on internal phosphorus cycling in lakes (Lake Apopka and Lake Okeechobee).**
- ✓ **I had never worked on P.**
- ✓ **For the first six months Ramesh had me go to the library and do a very thorough literature review on P. I made copies of the papers for Ramesh and wrote up briefs for each paper.**



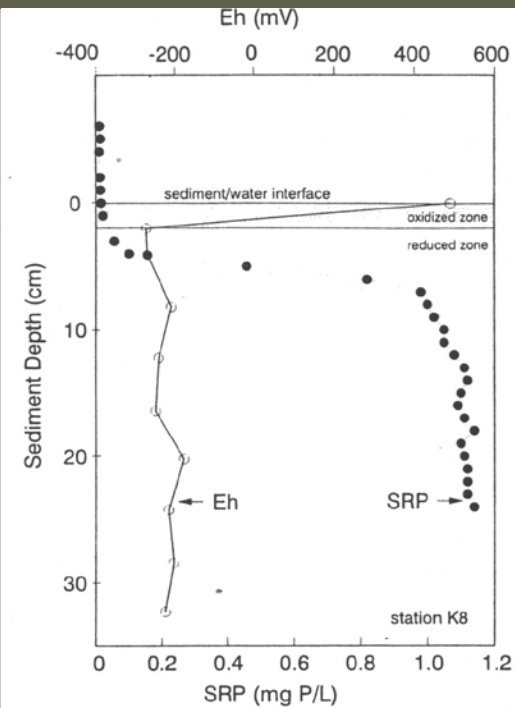
Memorable quote from Ramesh:
“If you want to be an expert on something,
then write a million dollar grant on it.”



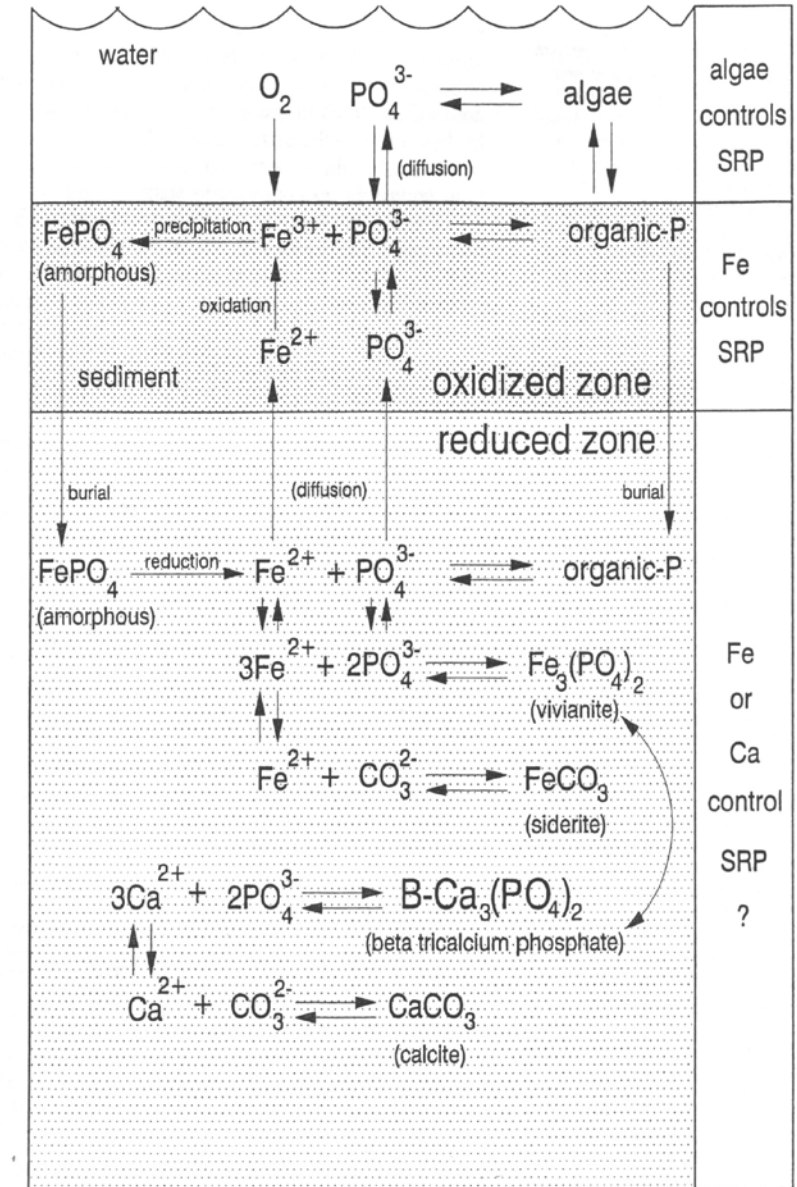
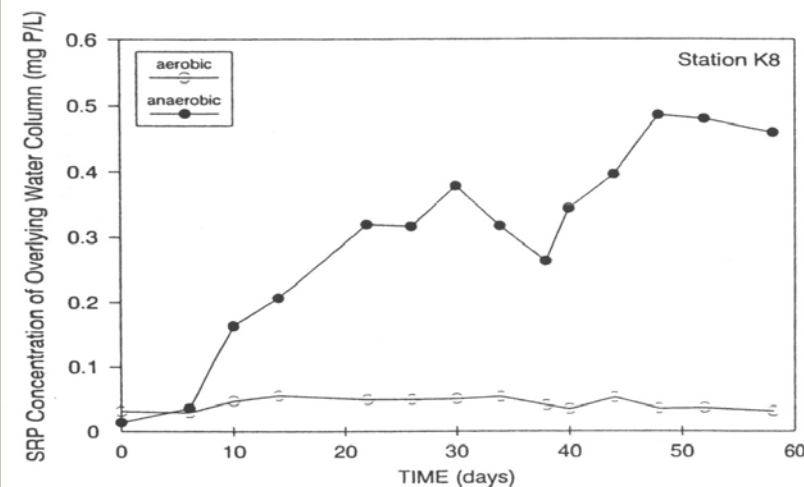
In Arkansas, I have 25 fields equipped with flumes and automatic water samplers to measure phosphorus runoff. I was trying to get microbiologists to measure pathogen runoff, but they all said it was too expensive.

So I wrote the grant “Quantification and Control of Bacterial Pathogens in Agricultural Watersheds” to NRI. Although I am no microbiologist, it was funded for the full amount. We’re still measuring pathogen runoff.

Ramesh had me focus on the biogeochemistry of P



- ✓ We measured Eh and porewater P profiles in sediment and measured P fluxes from intact cores.
- ✓ Used Eh/pH microcosms to study P solubility.
- ✓ Tried to figure out what controls P solubility.



Did that phosphorus work with Ramesh help my career?

Phosphorus Publications

- *10 U.S. Patents on P*
- *8 book chapters on P*
- *83 refereed journal articles on P*
- *108 non-refereed articles on P*
- *1 State Law (Arkansas Phosphorus Index)*

That phosphorus work basically made my career.

Treating lakes with alum to precipitate P

- ✓ Internal cycling of P in Lake Apopka is high enough to keep it hypereutrophic for centuries.
- ✓ One solution we looked at was adding aluminum sulfate (alum) to the lake to precipitate the P.
- ✓ The problem is Lake Apopka is so big, alum-treatment would cost several hundred million dollars, so we never did do that.



Treating poultry litter with alum to precipitate P

- ✓ When I returned to Arkansas, the big environmental problem was phosphorus runoff from poultry litter.
- ✓ I discovered that adding alum to poultry litter not only reduced P runoff; it reduced NH_3 emissions from litter, which made chickens healthier and grow faster.
- ✓ I patented this technology and it is used to grow a billion chickens in the USA each year. It has annual impact of about \$10 million and greatly reduces air and water pollution.



Al+Clear™ Litter treatment that lasts.

Week One
Week Two
Week Three
Week Four
Week Five

At last, a litter treatment that fights pathogens and ammonia all through the critical early weeks.

Al+Clear™ litter treatment will hold pH and ammonia below dangerous levels during growout — more cost effectively than any other product currently available! Properly controlling ammonia and reducing litter pH levels during the entire early stages of growth can have a significant impact on both your profits and the health and marketability of your birds.

A simple application of Al+Clear, before chick placement, has been proven to:

- Reduce bacterial litter pathogens.
- Reduce harmful ammonia.
- Reduce condemnations.
- Improve feed conversion and weight gain.
- Conserve energy.
- Improve nitrogen content and reduce phosphorous runoff in water by 90% when litter is used for fertilizer.

In addition, producers praise Al+Clear for:

- Sharply reduced darkling litter beetle counts.
- Convenient application accommodates short layout times.
- Effective ammonia control with just one application per flock.

Talk to an Al+Clear Poultry Specialist today at 1-800-631-8050. Ask for our informative brochure.

General Chemical
90 East Halsey Road □ Parsippany, NJ 07054

Patents Pending
© General Chemical 1997

Memorable Quote from Ramesh

“If you write a paper that is really good and it gets rejected by more than one journal, then send it to Science or Nature, because if it’s that controversial then it’s probably really good science.”



What was the *Ramesh Effect*?

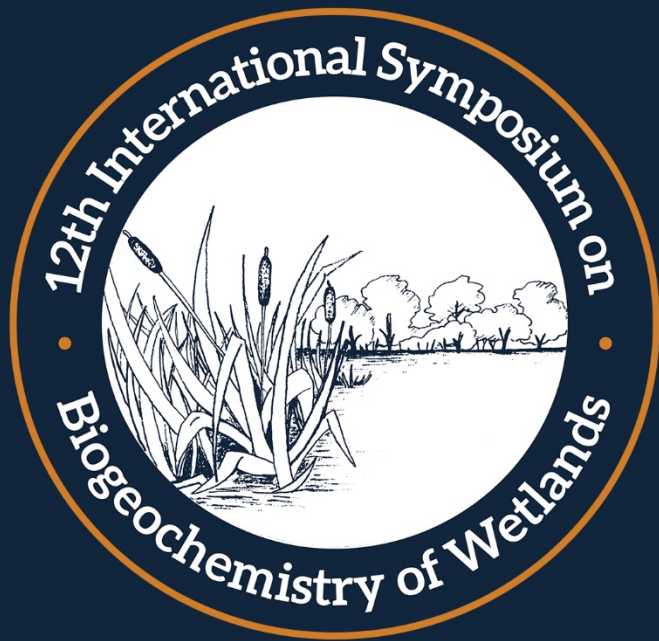
- ✓ Ramesh gave me my first job and trained me in P research, which made my career.
- ✓ Ramesh wrote letters of reference for my job with Univ. of Arkansas, then USDA/ARS.
- ✓ Ramesh wrote letters of reference every time I went up for promotion.
- ✓ Ramesh wrote letters of reference for every award I was nominated for.
- ✓ Ramesh was a fantastic mentor and has been a great friend for decades!

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Thanks Ramesh.

We Love You Man!



Ronnie
"The Very"
Best



NITRIFICATION - DENITRIFICATION REACTIONS IN FLOODED SOIL

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Agronomy

by

Konda Rameshwer Reddy
M.S., Andhra Pradesh Agricultural University, 1967
August, 1976

