



President's Letter

By: *Dr. Maria S. Santisteban, University of North Carolina at Pembroke*

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*What's going on in
the North Carolina
Academy of Science:*

- Honoring Dr. Charlie F. Lytle
- Featured Scientist—Dr. Steve Warshaw
- Announcing 2015-2016 CANCAS Officers

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It is an honor to be writing this letter to you as the new President of the North Carolina Academy of Science (NCAS). As a child who was born and grew up in a small town in the Basque Country in Spain, I never thought my life, my career, would take me one day to North Carolina and even less so to be president of its Academy of Science. I suppose this speaks of that truth, which is that Science has no frontiers. Science has the capacity to build bridges. It unites people that share a common passion, beyond ideologies; they tackle existential challenges like climate change, disease, or the impact of energy production. They work relentlessly to understand fundamental mechanisms –whether these be biological, medical, physical sciences or technology- to better human kind and not a particular nation, race, or group. There is true altruism in scientists and, above all, there is a genuine desire to gain understanding or contribute to progress, fueled by a curiosity that is like the first commandment of the “scientist book.”



Dr. Maria S. Santisteban

I see also altruism when I look around at my colleagues and predecessors in the NCAS. These people volunteer time and effort, often beyond what they “reasonably” can, because they believe in what they do, and they believe in the importance of our mission of promoting public appreciation of science, science education, scientific research and a meaningful role for science in public policy. I have “inherited” the presidency in one of the best times for the Academy, thanks to the outstanding contributions of those who led before me and the people who over the years have made the Academy what it is today, have increased its visibility and have made it sustainable in a time where many choices exist if someone wants to belong to a scientific society. I believe we are still unique in NCAS because we are sensitive to the issues that our state faces in various science fronts; I believe we are unique because of our composition with a Student Academy and a Collegiate Academy, which are integral parts of our body; I believe we are unique because through our grants we support undergraduate and graduate student research; I believe we are unique because our Annual meeting is that perfect first opportunity for undergraduate students to present their work to a friendly audience, to network with scientists and students alike and to be inspired by talks from renowned, influential scientists. I also believe our on-line only journal is special because it provides an affordable, fast way to publish scientific work and it gives us visibility.

It is our obligation to future generations of scientists to keep our Academy growing and sustainable. To that end, two of our most immediate needs are:

- To increase membership and diversity.
- To grow and invigorate our committees.

As your interests and career goals align with those of the Academy, I invite you to consider volunteering and contributing to the success of NCAS.

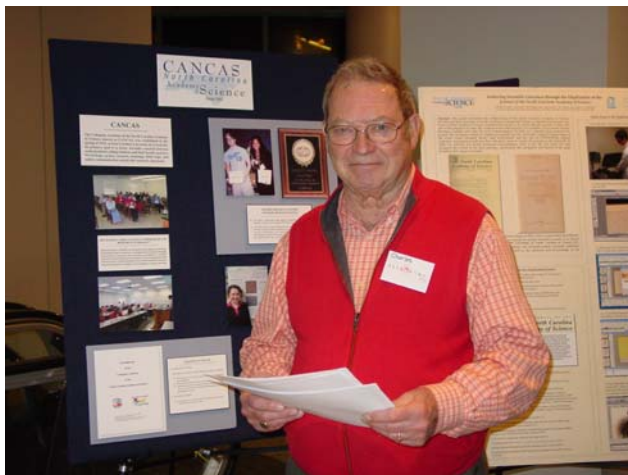
Sincerely,
Maria S, Santisteban (President 2015-2016) maria.santisteban@uncp.edu

NCAS in the News!

Dr. Charlie F. Lytle to Receive Honorary Life Membership

Report by: Dr. Lisa Kelly, Pembroke University

Dr. Charles F. Lytle has been a source of inspiration and leadership for the North Carolina Academy of Science for more than 40 years. It is with great pleasure that the Academy will recognize “Charlie” for his long and meritorious service by granting him Honorary Life Membership, the Academy’s most distinguished award. Charlie has served on several committees and in numerous capacities, including President (2007-2008), Vice President (1998-1999), and Representative (1993-1995) to the American Association for the Advancement of Science (AAAS).



*Charlie Lytle, Professor Emeritus of Zoology, NC State University
Photo Credit: Lisa Kelly*

He served as Executive Director of the Student Academy (NCSAS) from 1986-1991 and 2000-2004. He held leadership positions on the Academy’s science policy committees. He was instrumental in reestablishing a partnership with the North Carolina Museum of Natural Sciences, and he organized annual exhibits for Astronomy Days at the museum. In crafting position statements, organizing policy forums, fostering students and forging partnerships with scientific organizations, Charlie created a voice for scientists in public policy and he advanced science education in the state.

NCAS Members Participate in Bugfest

Report by: Dr. Karen Guzman, Campbell University

Each year, the NC Museum of Natural Sciences hosts an event called Bugfest, which by the museum’s estimates, draws in 35,000 visitors. This year, the theme of the event was Cicadas, but bug aficionados participate by setting up booths, games and other activities about a wide variety of insects and spiders, to the enjoyment of the guests. While visiting the event, I ran into two of our NCAS Members showing off some of their favorite critters. Mr. David Guzman of Entomopixel had his insect photographs that were framed, displayed in books, or embedded in jewelry. Dr. Eric Butler from Shaw University had a crew of enthusiastic students sharing their knowledge of various spiders and ants they had on display. *(continued on page 3)*

NCAS in the News!

NCAS Members Participate in Bugfest (continued)

Dr. Butler also gave a presentation in the Daily Planet Theater entitled “Hidden Ultraviolet Colors in Butterflies” to showcase one of his students’ research projects. From my observations, these two Academy members were thoroughly enjoying themselves, but I suspect they were worn out by the end of the day.

As you catch some of our NCAS members out in their element, I hope you will tell us so we can highlight the great events you all are involved in across the state!



Eric Butler at Bugfest. Photo Credit: David Guzman

Website News

Report by: Dr. Karen Guzman, Campbell University

Sometimes a new look or a new coat of paint is just what you need to spruce things up. That is what we are hoping for the Academy webpages. Before the end of the year, you will notice a new look when you visit the site as well as reorganization of a few things to make them easier to find for those familiar or unfamiliar with the Academy. We are also hoping that with the new site we can do some fun things to keep you better informed. Stay tuned for more about these changes later this year.

First NCAS Annual Dues Notice

Your member contributions help support programs and maintain the viability of the Academy. Please renew your membership for the upcoming year (due January 1). Visit the membership tab on www.ncacadsci.org to pay your dues today!

Do you have exciting news to share
with the NCAS Family?

Let the publication committee know,
and we can highlight your news!

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***Thanks to Meredith
College for hosting our
Home Office and
NC Academy of Science
Headquarters!***

Featured Scientist: Dr. Steve Warshaw

Report by: Dr. Jess McCann, Duke University

There is much talk of “non-traditional” careers for PhD scientists. These alternative tracks are usually defined as something other than a principal investigator at an academic research institution. But with less than half of US trained postdocs going on to hold academic positions (tenure track and non tenure track alike, according to a recent survey by the National Science Foundation¹), it is the academic track that’s starting to look like the alternative choice. A shining example of a PhD scientist who left the traditional career path is former NCAS board member Dr. Steve Warshaw.

After graduating from Yale with a PhD in Biology, Dr. Warshaw held several positions, including Scientist at the Naval Medical Research Institute and Biologist/Head of stream/reservoir/estuary monitoring for the Texas Water Development board. But ultimately, he was called to teach, got his teacher certification and started working at the NC School of Science and Mathematics (NCSSM) in 1985. But the relatively new teacher was quickly pulled into administrative roles at the school. After his first year at NCSSM he was asked to head the science department. Then, in 1992, he accepted the job as principal (now titled Vice Chancellor for Academic Programs). But his acceptance was conditional – if it didn’t work out, he wanted his old job back. And he wanted to continue teaching. Thus began a 30-year tenure in teaching and administration at NCSSM.

While trained as a scientist, Dr. Warshaw feels very strongly that a liberal arts education holds a lot of value in today’s world. In a recent op-ed piece, Dr. Warshaw wrote, “The old concept of a single scientist toiling in his or her lab and publishing a paper individually is not nearly as prevalent today.” Science is now much more collaborative and requires going across disciplines to understand complex phenomena at their most basic levels. So, Dr. Warshaw continues, “Scientists need the skills of working with others and negotiating with them,” and to be great critical thinkers. The process of collaboration means that you often step outside your knowledge base as a scientist, and still need to be able to ask thoughtful questions that move the whole team toward a shared goal. Critical thinking skills, often learned during a liberal arts education, are necessary for such tasks.

Dr. Warshaw is now retired from his post at NCSSM. He’s since taken up a new position as president elect of the National Association of Academies of Science (NAAS), whose mission is “to promote the scientific and science education goals of its state, regional and municipal academies of science.” Consisting of 47 state and regional academies of science, the NAAS has existed in some form since 1927. The NAAS seeks to encourage junior and collegiate academies of science to support research activities of scientists very early in their careers. When asked about what the state societies like NCAS can do to improve on our mission, he replied with two points: First, “Be very intentional about nurturing the interest and understanding of people of all ages, but especially young people, in science.” And second, “Create and take advantage of opportunities to influence political and economic decision-making processes that impact science in our state, particularly with regard to environmental issues.” Thanks, Dr. Warshaw, for your contributions to the NCAS and your continued leadership in fostering science education!

For more from Dr. Warshaw about the necessary coexistence of STEM and liberal arts in education, see <http://www.ncssm.edu/news/why-stem-liberal-arts-education-should-co-exist/>

¹ “Science and Engineering Indicators, 2014 <http://www.nsf.gov/statistics/seind14/index.cfm/chapter-5/c5s3.htm>



Photo contributed by Steve Warshaw

Job Openings in the Scientific Community

For more information on how to apply, go to <http://www.ncacadsci.org/NCAS/jobOpportunities.html>

1. Assistant Professor — Applied Optics, University of North Carolina at Charlotte, Charlotte, NC

The Department of Physics and Optical Science at the University of North Carolina at Charlotte is seeking applicants for a tenure-track **Assistant Professor position in Applied Optics**, with specialization in geometrical optics, optical design, optical fabrication, or optical metrology. Candidates must have a PhD or equivalent degree in optical science, optical engineering, or a closely related field, a significant record of research and publication, and a strong commitment to teaching at the undergraduate and graduate levels. For full consideration, all application materials should be received by November 30, 2015.

2. Assistant or Associate Professor — Public Health, Campbell University College of Pharmacy and Health Sciences, Buies Creek, NC

Campbell University is seeking an **Assistant or Associate Professor in Public Health**, College of Pharmacy and Health Sciences, Department of Public Health.

Review of applications will begin on September 28, 2015, and continue until the position is filled.

3. Lecturer — Statistics, Elon University, Elon, NC

Elon University is seeking a **Lecturer in Statistics**. Review of complete applications will begin immediately, but for full consideration, completed applications must be received by October 1, 2015

NCAS Annual Meeting 2016: Save the Date!

Where:

Methodist University

When:

Friday April 1st and Saturday April 2nd, Times TBD

Theme: It isn't Easy Being Green, Or Is It?: A S.T.E.M.-Based Approach at What It Means to *Be* "Green"



CANCAS Fall Research & Career Workshop

Report by: *Dr. Beth Overman, N.C. State University*

Where: Pfeiffer University, Misenheimer, NC

When: November 7, 2015

The CANCAS Fall Undergraduate Research and Career Workshop is scheduled for November 7, 2014 at Pfeiffer University in Misenheimer, North Carolina. The workshop will run from 9:00 am to 4:30 pm. The workshop will include sessions related to research/study abroad opportunities, research skills and career preparation. Students will have the opportunity to improve their resumes and interviewing skills. Two discussion panels consisting of current and former students and professional school admissions and industry representatives will provide an open forum for career and research questions. There will be plenty of networking opportunities with peers and faculty during the Luncheon, Social, and CANCAS Business Meeting. Pre-registration will be available online at the CANCAS website starting October 7th. Please mark the date in your calendar and register to save your spot at the CANCAS Workshop!

CANCAS Officers, 2015-2016

Position	Student Officer	Email Contact
President	Morgan Packer <i>Campbell University</i>	mrpacker0531@email.campbell.edu
Co-Vice Presidents	Ishmael Gomez and Kamana Guinyard <i>Nash Community College and NCA&T</i>	Igomez773@st.nashcc.edu
Secretary	Annapurna Hanumanthu <i>NC State University</i>	ahanuma@ncsu.edu
Historians	Adele Price and Richard Jordan <i>Guilford College, Lenoir Rhyne University</i>	priceae@guilford.edu Richard.jordan@my.lr.edu
Campus Liaison	Nathaniel Akers <i>UNC Wilmington</i>	

***Congratulations,
new officers!***

Left to right: Adele Price, Richard Jordan, Anu Hanumanthu, Kamana Guinyard, Ishmael Gomez, Morgan Packer. Photo Credit: Beth Overman





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Check us out on the web!
<http://www.ncacadsci.org/home.html>

The **objective** of the North Carolina Academy of Science is to *encourage the advancement of science within the state of North Carolina by promotion of scientific research and by the fostering of education in the sciences*". The North Carolina Academy of Science meets these objectives by...

- Publishing a peer reviewed scholarly journal, the *Journal of the North Carolina Academy of Science*.
- Fostering and encouraging student involvement in the sciences through support of the Collegiate (CANCAS) and Student Academies (NCSAS).
- Promoting interactions among scientists and students throughout North Carolina.
- Providing a forum for exchange of ideas for solving issues important to North Carolina.

The Academy members include individuals from academia, industry, government, and all others who support the objectives and goals of the Academy.

North Carolina Academy of Science

Our Mission

The North Carolina Academy of Science promotes public appreciation of science, science education, scientific research and a meaningful role for science in public policy.

Our Goals:

Promote public appreciation of science

- Partnership with Science Centers
- Public Lecture Series
- Newsletter

Promote science education

- NCAS Webpage
- Academic Lecture Series
- NCAS Publications: Journal, Educational Publications
- Student Academy - Middle & High School

Promote scientific research

- Yarbrough and Bryden Research Grants
- CANCAS Undergraduate Research Workshop
- Presentation Opportunities at Annual Meetings
- Journal of the North Carolina Academy of Science

Promote science in public policy

- Symposia
- News Releases
- Position Statements
- Interactions with Public Officials

