


# NOMINATION SIGNATURE PAGE

## 2021 Virginia Outstanding Faculty Awards

Please include this as the cover page of the nomination package PDF submission\*

Name of Applicant:	William A. Hopkins
Institution:	Virginia Tech
Category:	Research/Doctoral
Signature of President or Chief Academic Officer:	
Printed Name of President or Chief Academic Officer:	Cyril R. Clarke
E-mail address of President or Chief Academic Officer:	provost@vt.edu
Telephone number of President or Chief Academic Officer:	540-231-6123

## **MISSION STATEMENT**

Inspired by our land-grant identity and guided by our motto, *Ut Prosim* (That I May Serve), Virginia Tech is an inclusive community of knowledge, discovery, and creativity dedicated to improving the quality of life and the human condition within the Commonwealth of Virginia and throughout the world.

## PROFESSOR WILLIAM A. HOPKINS: SUMMARY OF ACCOMPLISHMENTS

Dr. William A. Hopkins has devoted his career to discovering the unintended side effects of human activities on the environment and developing integrated solutions to these societal problems. His research program is highly collaborative and interdisciplinary, drawing from fields such as ecology, toxicology, physiology, wildlife disease, chemistry, and the social sciences. Importantly, much of his work is solution-oriented, as he adeptly works with stakeholders and decision makers to generate both local and national solutions to pressing environmental issues. He is an award-winning teacher, researcher, and mentor in the College of Natural Resources and Environment's Department of Fish and Wildlife Conservation, and is regarded as a thought leader among the faculty at Virginia Tech. Dr. Hopkins' influence, however, extends far beyond his classroom and personal research achievements. Over the last 10 years, his innovative leadership has resulted in remarkable positive change at Virginia Tech and beyond. For example, Dr. Hopkins is the Founding Director of one of the most successful, university-wide interdisciplinary graduate education programs at Virginia Tech. Similarly, he is the Founding Director of a campus-wide center that has become the model for several other centers being established at Virginia Tech. As a result of his cross-campus reach, he is widely considered to be a strong advocate for faculty interdisciplinary collaborations, a visionary leader of undergraduate experiential learning initiatives, and a pioneer of interdisciplinary graduate training. His passion is further evident in his public service and science outreach as he serves on several National Academies of Sciences, Engineering, and Medicine expert committees, provides frequent advisement to state and federal agencies, develops novel and free science programming for the local community, and speaks publicly and with the press (e.g., NPR, 60 Minutes, The New York Times) about the most critical environmental issues of our time.

### TEACHING

Dr. Hopkins' enthusiasm for science, dedication to his students, and magnetic personality filled the classroom with an electricity that impelled engagement and learning.  
**Dr. Amanda Wilson Carter, former undergraduate student, Virginia Tech**

Dr. Hopkins is a respected and award-winning educator. Since arriving at Virginia Tech, he has taught eight different courses, most multiple times. He is a dynamic and passionate lecturer who consistently receives nearly perfect teaching evaluations by students (15-year avg = 96.8 out of 100%), which is remarkable considering that his 8 a.m. sophomore-level course (65-75 students) is widely regarded as one of the more challenging courses in his departmental major. His teaching evaluations are consistently among the highest of all faculty members in both his department and college. He has received two Outstanding Faculty Awards for Undergraduate Teaching and Mentorship from his department, a Favorite Faculty Award from residential undergraduates, and twice been nominated by his college for the Alumni Award for Outstanding Undergraduate Mentoring. Dr. Hopkins is also one of the leading advocates and change agents for experiential learning at Virginia Tech. Examples of his innovations with experiential learning are highlighted below.

- As chair of his department's curriculum committee for seven years, he worked with the department head to institute an *Experiential Learning Requirement*, ensuring that every undergraduate in the department would graduate having completed an internship, independent study, research experience, and/or study abroad.
- He manages a *large undergraduate research group in his laboratory*, mentoring over 100 undergraduate researchers to date.
- He co-teaches *two study abroad courses* in one of the most biologically diverse locations in the world (Amazonian Ecuador) and one of the most cherished natural heritage sites on earth (The Galapagos Islands).

- In 2008, he created a *novel mentoring and senior thesis program* in his lab with support from the National Science Foundation, and it remains the only formal undergraduate thesis program in his college. The program ([Facilitated Learning for Developing Graduate Experiences \[FLeDGE\]](#)) promotes reciprocal learning by pairing a graduate student or post doc (the mentor) with an undergraduate for 18-24 months while she/he conducts a major senior thesis project. Importantly, the program emphasizes mentoring the mentors just as much as mentoring the undergraduates. Today, Dr. Hopkins' academic mentees, who occupy faculty positions around the country, attest that this was the most influential part of their professional training.
- He developed a capstone experience for interdisciplinary Ph.D. students that includes a *multi-day, immersive science-policy visit to D.C.*, where students tour major government landmarks and meet with state representatives, staffers, lobbyists, and NGOs to see first hand how scientific data are used in decision making.
- Working with the President of nearby Hollins University, Dr. Hopkins created a partnership that provides intensive [summer research experiences to Hollins undergraduates](#).
- He created [Science-Policy Fellowships](#) for Virginia Tech science and engineering undergraduates in Washington D.C. These competitively awarded, university-wide fellowships provide full funding (including tuition, stipend, and living expenses) for students to live in D.C. and intern within a federal agency, think-tank, or NGO.

## DISCOVERY

Dr. Hopkins' diverse work on wildlife provides remarkable textbook examples on how to use rigorous physiological science to save endangered species. Several of his papers form the core of my students' Ph.D. candidacy exams. Importantly, his research not only garners outstanding national and international acclaim, but is also relevant to the public and has direct societal impact. **Dr. L. Michael Romero, Professor of Biology, Tufts University**

Dr. Hopkins is a conservation physiologist who studies the influence of anthropogenic global changes such as pollution, disease, habitat destruction, and climate change on the health of wildlife populations. Dr. Hopkins addresses global change problems with a unique interdisciplinary and transdisciplinary approach, and as a result he is heavily cited in at least a dozen disciplines. His longstanding commitment to discovery has resulted in international recognition for his outstanding contributions in three primary research areas.

First, Dr. Hopkins is the world's leading expert on the effects of solid wastes produced from coal combustion on wildlife populations. These wastes represent the second largest type of solid waste produced in the U.S. and pose significant hazards to the environment. A large proportion of these wastes is currently disposed of in open settling basins (i.e., ash ponds), which has resulted in catastrophic releases like the 2014 Dan River, NC spill and the 2008 Emory River, TN spill – the largest industrial spill of any kind in U.S. history (e.g., five times larger than the BP oil spill in 2010). Importantly, Dr. Hopkins' research reveals that these disposal ponds pose an insidious threat to wildlife on a daily basis; the ponds attract wildlife that are then exposed to high concentrations of pollutants like arsenic and selenium, which can cause cancer, developmental abnormalities, and reproductive failure. Because of his expertise in this area, he regularly provides guidance to state and federal agencies, as well as to the utility industry; provides expert testimony in Washington D.C.; offers perspectives to major media outlets; and has previously served on the National Academy of Sciences, Engineering, and Medicine committee on the disposal and regulation of these materials.

Second, Dr. Hopkins is a pioneer in an emerging field examining the effects of climate parameters, which have become more variable and extreme in the last 30 years, on parental care and the early development of wildlife. Specifically, his research group has focused on how

weather conditions can influence the incubation temperature of bird and reptile nests, and how this influences embryonic development and the quality and survival of offspring produced by parents. His work has produced shocking results: subtle changes in temperature ( $< 1^{\circ}\text{C}$ ) during early development can influence many aspects of offspring form and function, including their immune system, sex ratios, thermoregulatory ability, brain development, locomotion, and the endocrine system. Dr. Hopkins' cutting-edge work in this area on birds has created an entirely new field of study with labs around the world now investigating this important phenomenon.

Third and importantly, Dr. Hopkins has broken new ground addressing what is widely regarded as among the most important and fundamental questions in all of modern biology: How do responses at one level of biological organization (e.g., cell, individual) translate to responses at higher levels of organization (e.g., populations, communities)? Dr. Hopkins' team has integrated field surveys, elegant laboratory and field experiments, and theoretical models to demonstrate that when a mother's health is compromised by pollution, it can influence the quality of the offspring she produces, which in turn can cause local population declines. Most significantly, his work goes further to demonstrate that effects on one population can actually influence the viability of other nearby, inter-dependent populations. This finding has created an entirely new way of thinking: pollution in one location may actually cause wildlife population declines in other less- or non-polluted locations. Dr. Hopkins' work has implications for fields as diverse as human medicine, epidemiology, ecotoxicology, and conservation biology. Several recognitions of Dr. Hopkins' expertise and contributions are highlighted below.

- In 2015, Dr. Hopkins received the Virginia Tech Alumni Award for Excellence in Research, the highest research award offered at Virginia Tech.
- Dr. Hopkins served as the chief ecological advisor to the Tennessee Valley Authority (2009-2011) following the catastrophic waste spill in Kingston, TN.
- Following the BP oil spill, he was called upon by the U.S. Department of Interior to develop and validate novel emergency response protocols for assessing effects of oil on birds. These protocols have been adopted for all future oil spills in the U.S.
- He is a four-time Pellston/Wingspread Conference invitee (Global Amphibian Decline; Ecological Effects of Selenium; Climate Change & Pollution; and Ecological Restoration).

## KNOWLEDGE INTEGRATION

When it comes to addressing environmental problems Dr. Hopkins is a visionary, and the Global Change Center reflects this vision. The Center brings together engineers, environmental scientists and social scientists to work in interdisciplinary teams to address the complex, "wicked" issues that threaten natural environments and the species that inhabit them. The Center's graduate program provides high level training in interdisciplinary research, the interaction of science and policy, and science communication, training that is nearly unique among graduate programs in the United States. These students arguably will be the most lasting legacy of the Center, and provide reason for optimism in the face of the myriad threats to biodiversity. None of this would exist if not for Dr. Hopkins.

**Dr. Jeff Walters, The Harold Bailey Endowed Professor of Biology, Virginia Tech**

Dr. Hopkins has been a thought leader since arriving at Virginia Tech, consistently pushing the boundaries by establishing innovative programs that integrate discovery with education and public engagement. Perhaps the best example of this integration is the [Global Change Center \(GCC\)](#) at Virginia Tech. In 2015, Dr. Hopkins established the GCC, and his leadership continues today. The GCC advances interdisciplinary scholarship and education to address critical global changes impacting the environment and society by developing and administering innovative programming, courses, curricula, faculty seed grants, graduate fellowships, and extensive public outreach. This cross-campus initiative currently includes 79 faculty affiliates

from dozens of disciplines (20 departments and eight colleges within Virginia Tech). It is arguably among the most successful campus-wide centers at Virginia Tech and has become a model for other emerging centers. Among other successes, the GCC boasts one of the largest and most successful interdisciplinary graduate education programs at Virginia Tech. Dr. Hopkins and the GCC are recognized for many accomplishments, including:

- Facilitated the formation of 18 new research teams that include 50 faculty co-PIs from 18 departments and six colleges, as well as external state, federal, and academic partners.
- Through the collaboration of GCC faculty affiliates, garnered more than \$55.5 million in new extramural grant funding since the GCC was founded five years ago
- Developed an interdisciplinary Ph.D. program currently with 64 Ph.D. fellows, hailing from 12 nations and solving global change problems with their research in 14 countries
- Administered up to \$340K per year in interdisciplinary fellowships and research grants to graduate students, including two new initiatives that each award \$90K/year towards fellowships focused on 1) Diversity and Inclusion and 2) Rural Environmental Health
- Created the Distinguished Public Lecture Series at the Lyric Theatre (free to the public)
- Assisted in the recruitment of ~26 new faculty members to Virginia Tech across 16 departments

## SERVICE

Dr. Hopkins has been asked by the National Academies to serve on four study committees, serving with great distinction on each and as chair of one. . . . Those who have had the good fortune of working with Dr. Hopkins on these committees know of his selfless service as a volunteer; his keen scientific intellect and expertise; and his ability to lead other professionals from diverse backgrounds respectfully toward direct, actionable advice for government, industry, and the public. I can't say enough about his positive character, scientific excellence, and his lasting contributions to advancing science as a key input to policy and sound decision making. **Dr. Elizabeth Eide, Executive Director, Division of Earth & Life Studies, The National Academies of Sciences, Engineering, & Medicine**

Dr. Hopkins believes that his greatest responsibility and opportunity for impact is in his service to students, his colleagues, the university, and society. Because of this, a service mindset permeates every aspect of his professional life, is the motivating force behind most of what he does, and is highly evident in the translational nature of his work involving collaborations with stakeholders and decision makers outside of academia. In addition, he is a gifted science communicator who regularly engages the public in school events, science fairs, large free public lectures that he creates, and the Lifelong Learning Institute's multi-year lecture series on global change. In addition to his work with the GCC, other examples of Dr. Hopkins' service include him serving as:

- Member of four National Academy of Sciences, Engineering, and Medicine committees.
- Associate Editor for three journals (*Functional Ecology*, *Environmental Toxicology and Chemistry*, and *The Scientific World*).
- One of 18 U.S. scientific delegates (NSF-funded) sent to Hungary in an advisory capacity after the devastating Tisza River Cyanide spill in 2000.
- Member of the Commonwealth of Virginia's Technical Advisory Committee and Regulatory Advisory Panel for state regulatory determination of power plant wastes.
- Scientific expert on five Natural Resource Damage Assessments and Restoration (NRDAR) cases with the U.S. Dept of Interior, including high profile cases like the BP oil spill and the TVA ash spill, and two cases in Virginia (Hg Pollution near Saltville and Waynesboro, VA).
- Expert providing science-based opinion/testimony dozens of times to the White House (OMB), USEPA, USDOJ, state agencies, industry, and public interest groups.

## PROFESSOR WILLIAM A. HOPKINS: PERSONAL STATEMENT

*The two most important days in your life are the day that you are born, and the day you find out why. -Mark Twain*

Everyone is gifted at something, but discovering what that ‘something’ is and turning it into a gratifying career path can take considerable personal exploration and encouragement from engaging mentors. I personally connect with this common dilemma because it took me a long time to identify my own skills, passions, and higher purpose. Thanks to a chance encounter with an influential mentor, however, I eventually found my calling to integrate scientific research, mentorship of students, and public service to address global environmental problems. I consider myself to be extraordinarily fortunate. I turned my passion into a career, which allows me to seize each day with unwavering enthusiasm. I owe my good fortune to those who gave me opportunities and who mentored me, and I have devoted much of my career as a university professor to giving back—helping young people to identify their own talents and pursue their personal passions, creating new innovative opportunities for students to explore rewarding career paths, and challenging current organizational structures (e.g., disciplinary ‘silos’) to improve higher education while creating new research synergies across the university.

My journey as a scientist didn’t really begin until my sophomore year of college. I grew up in a family of extraordinarily accomplished medical professionals, including my grandfather who was a decorated surgeon in WWII and came back to be a pioneering cardiovascular surgeon. Among other things, he invented and used one of the earliest heart-lung machines. And to me, as a young boy who was very close to him, he was bigger than life. Naturally, from an early age, I sought to walk in his footsteps and become a physician. In preparation for this career, I took as many science classes as possible in middle and high school, shadowed a physician, and eventually headed off to a small liberal arts college with a highly specialized program for pre-med and -pharmacy students. But something started happening in my senior year of high school and really took hold during my freshman year of college. I began to see social and environmental issues through a different lens, and by the end of my first semester, I had a devastating realization: I no longer had any interest in pursuing a career in medicine.

For a 19-year-old, this realization was pretty earth shattering. I was turning away from the only career option that I had ever known, and I was terrified to tell my family, especially my grandparents, who had helped nurture my professional path. I completely lost interest in school, and my grades began to slip. After a couple of semesters of poor academic performance, I realized that I was running the risk of dropping out of college. So, I went to see my advisor and several other professors who all suggested that I use my pre-med curriculum to explore alternative fields like dentistry, which were equally uninteresting to me. I felt helpless. As a last resort, I went to see the department head, a man who I had never met. He patiently listened to my dilemma and then he asked me a simple, yet profound question: “What are you passionate about?” After pondering for a few moments, I eventually said, “Nature.” I told him that some of my most vivid memories were exploring the forest and creeks behind my childhood home. And now as a college student, I spent every spare moment exploring the beautiful mountains, streams, and coastlines of the Southeastern U.S. I also confessed to him that over the last couple years I had grown increasingly saddened from what I saw happening all around me: *the degradation of the wild places and the loss of wild things that I cared about*, including some of the places that had shaped my early childhood. After watching the fire in my eyes as I explained my deep concerns about the environment, he leaned in and told me “forget about medicine, this is your calling.” Little did I know that this sage advice would change my life.

Through his guidance and some influential people who believed in me, that summer I landed an internship chasing bald eagles along the coast of Georgia – and I was hooked. This experiential learning opportunity showed me that there was a whole community of people who shared similar interests and were building fulfilling careers around them. I went back to school and moved from being in the bottom of my graduating class to making the highest grades on



exams. I had direction and became laser focused. I had found my passion and purpose in life, and I would go on to build my entire career around it.

The lesson that I learned from this advice was simple yet profound. True passion is one of the most powerful motivators of human behavior. It strikes at the core of who you are as a unique human being. It is what brings you joy and fills you with energy. Throughout my career, I have successfully used this as a guiding principle for effective mentorship, teaching, motivating people, and research collaboration. And as the years have passed, I have come to believe that identifying and respecting the individual interests and diverse motivations of my colleagues and students can lead to remarkable synergies, scientific breakthroughs, and positive change. As a result, my philosophy as an educator, mentor, leader, and researcher is grounded in four tenets:

- 1) Students should chase their personal passions in their careers and align this with a higher purpose for their work.
- 2) The most transformative learning experiences occur outside the classroom.
- 3) Modern “wicked” problems can only be solved with remarkable interdisciplinarity, cooperation, effective communication, and community engagement.
- 4) Everyone has an obligation to be a good citizen.

**Aligning Passion and Purpose:** As a result of my own experiences, I am convinced that the secret to a fulfilling career is to align one’s passions with a higher purpose, so that one’s career is stimulating and fulfilling, and contributes to the greater good of society. As I mentor undergraduate and graduate students, I respect each of them as an *individual* and inspire them to reach *their* full potential. I emphasize early exploration of diverse opportunities to identify their passions and skills, and the importance of finding ways to harness these to make the world a better place. I have found deep mutual respect arises by engaging students based on their individualized passions and goals. This effective approach has resulted in many long-lasting relationships with former students who have pursued incredibly diverse and successful careers.

**Experiential Learning:** I firmly believe that the most transformative learning experiences occur outside the classroom, especially when mentors and mentees actively engage in the processes of creativity and discovery together. I personally found my own passion and career path through the aforementioned hands-on wildlife internship. The experience changed my life, and I have dedicated more than 15 years to coaching undergraduate students into similar experiences, and advocating for innovative, experiential learning opportunities campus-wide that are just as diverse as our students. Each year, I watch these hands-on learning opportunities transform the lives and career paths of our students, often in unexpected and exciting ways.

**Interdisciplinarity and Translational Outcomes:** Pursuing one’s passions can lead to a fulfilling career, but solving the most ‘wicked’ societal issues today (e.g., infectious disease, poverty, food security, climate change) requires that networks of passionate professionals engage in remarkable teamwork, integrated thinking and innovation, and effective cooperation with diverse non-academic stakeholders. To this end, I have devoted much of the last decade to creating programs and a university-wide center with the mission of breaking down disciplinary barriers, incentivizing cross-campus collaboration, promoting the translation of science to real solutions, and equipping the next generation of scientists with the skills they need to be leaders, work in interdisciplinary teams, and be effective science communicators.

**Citizenry:** Creating vibrant, inclusive, and supportive communities has been a cornerstone of my approach to developing my own research lab, the Global Change Center, and the interdisciplinary graduate program that I direct. Inspiring my mentees and fellow faculty to engage in community-based activities and science communication with the public has been fulfilling for them and created an atmosphere where civic engagement is an expected part of one’s personal growth and viewed as a core responsibility as members of land grant university.



## WILLIAM A. HOPKINS: ABBREVIATED VITAE

### Education

- 1999-01 Ph.D. University of South Carolina, Ecology, Evolution, & Organismal Biology  
1994-97 M.S. Auburn University, Zoology  
1988-92 B.S. Mercer University, Biology

### Current Professional Appointments

- 2020- Associate Executive Director, The Fralin Life Sciences Institute, Virginia Tech  
2018- Founding Director, Interfaces of Global Change Interdisciplinary Graduate Program, Virginia Tech Graduate School (served same position 2013-2016)  
2017- Adjunct Professor, Dept. of Forestry, Wildlife, and Fisheries, Univ. of Tennessee  
2017- Adjunct Professor, Dept. of Forestry and Natural Resources, Purdue University  
2015- Founding Director, The Global Change Center at Virginia Tech (GCC)  
2013- Professor, Department of Fish and Wildlife Conservation, Virginia Tech  
2013- Associate Editor, *Functional Ecology*, British Ecological Society (global top-tier ecological journal)  
2009- Adjunct Professor, University of Georgia, Odum School of Ecology

### Honors and Awards (Selected)

- 2018 [Graduate Commencement Address](#), Graduate School Ceremony, Virginia Tech, Dec. 2018  
2018 Mitchell A. Byrd Award for Outstanding Scientific Achievements in Ornithology  
2018 Keynote Address, Virginia Tech Undergraduate Research Symposium  
2017 Outstanding Graduate Mentor Award, Virginia Tech Graduate School  
2016 The Eugene Odum Distinguished Lecture, University of Georgia  
2015 Alumni Award for Research Excellence, Virginia Tech  
2015 Dwight L. Merriman, Jr. Distinguished Visiting Scientific Fellow, UC Davis  
2012 & 2007 Outstanding Faculty Award in the Department of Fish and Wildlife Conservation (for undergraduate mentorship and teaching)  
2012 Favorite Faculty Award, Virginia Tech 2012 (voted on by residential undergraduates)

### Teaching

*Teaching Effectiveness at Virginia Tech*: 96.8% average student evaluation score since 2006

#### *Undergraduate Academic Courses Developed & Taught at Virginia Tech*

- Darwin's Galapagos: Evolution in the Anthropocene (Interdisciplinary Study Abroad)
- Tropical Ecology & Conservation I and Tropical Ecology & Conservation II (Study Abroad)
- Wildlife Biology

#### *Graduate Academic Courses Developed & Taught at Virginia Tech*

- Vertebrate Physiological Ecology
- Global Change Seminar I (Interdisciplinary) & Global Change Seminar II (Interdisciplinary)
- Global Change Science and Society (Graduate Capstone Course; Interdisciplinary)
  - Includes multi-day immersive science-policy experience in Washington D.C.

### Mentoring

- Committee Chair/Co-chair to 15 graduate students (7 M.S., 8 Ph.D.)
- Graduate student mentees received more than 95 awards and grants, including prestigious Graduate Research Fellowships from the NSF and USEPA, multiple department- and college-level outstanding graduate student awards, and a Virginia Tech outstanding dissertation award.

- Mentor to 10 post docs, 21 undergraduate independent research/senior theses, and 3 high school science teachers
- Mentor to 14 other graduate students conducting their research in his laboratory
- Inclusion & Diversity Commitment: The 63 mentees above include 43 women, several first generation students, and mentees of Native American, Latinx, Japanese, and Iraqi descent.
- Graduate Committee Member to 51 other graduate students from 14 departments and 7 universities; Research mentor to more than 80 additional undergraduates (non-thesis)

### **Research Publication Summary**

- 192 peer-reviewed articles and book chapters (141 since joining Virginia Tech in 2005)
- High citation frequency. Cited 7,725 times. Currently being cited nearly 700 times each year (and steadily climbing). Citation Impact Metrics: h-index = 50 i10-index = 147
- Research featured 8 times on the cover of 7 major scientific journals (*Functional Ecology*, *Biology Letters*, *Ambio*, *Physiological & Biochemical Zoology*, *General & Comparative Endocrinology* (x2), *Zookeys*, and *Environmental Toxicology & Chemistry*)

### **Funding Summary**

- 51 grants and contracts awarded (43 since joining Virginia Tech in 2005)
- Total: \$14,602,170 (\$13,405,926 since joining Virginia Tech in 2005)
- From federal, state, corporate, and foundation sources to include the NSF, USGS, USDOE, USFWS, USEPA, USFS, Tennessee Valley Authority, DuPont de Nemours, Inc., VA Dept of Wildlife Resources, Eppley Foundation, and the National Fish and Wildlife Foundation

### **University Service (Selected)**

- Three invited presentations to the Virginia Tech Board of Visitors
- Several executive-level search committees to include the Executive Vice President & Provost, Vice President for Research & Innovation, the Executive Director of the Fralin Life Sciences Institute, and a college-level Director for Inclusion & Diversity
- Beyond Boundaries Global Land Grant Committee (30-year Visioning Committee), Office of the President
- Virginia Tech President's Beyond Boundaries Advisory Committee
- Chair & Spokesperson, Global System Science Destination Area, Office of the Provost
- Council on Vibrant Virginia, Office of Vice President, Outreach & International Engagement
- 2014-2018 Advisory Board Member, Office of Undergraduate Research

### **Public Service & Public Engagement (Selected)**

- National Academy of Sciences, Engineering, and Medicine committee service
  - 2018-20 (Chair) National Review of Data Quality at USGS Laboratories
  - 2017-18 Human Health Effects of Coal Mining in Appalachia
  - 2015-16 South Florida Aquifer Storage and Recovery
  - 2004-06 Mine Placement of Coal Combustion By-Products
- 2017-18 International Panel. Assessment of Mercury Interactions w/ Global Change
- 2017-19 Species Status Assessment Committee. 12-member team of scientists tasked with making a formal recommendation to federal govt. on Endangered Species Listing
- 2008-11 Technical Advisory Committee & Regulatory Advisory Panel on state regulations for disposal of power plant wastes. Virginia Department of Environmental Quality
- 2005-present. Developed the GCC Distinguished Public Lecture Series. Brings leading experts to Blacksburg for free public lecture at the downtown Lyric Theatre
- 2003-present. Blacksburg High School Backyard Birds. Worked with high school teachers to build and install 50 bird boxes on BHS property-used in shop, art, and biology classes

## WILLIAM A. HOPKINS: EXCERPTS FROM STATEMENTS OF SUPPORT

**Timothy D. Sands, President, Virginia Tech.** The founding director of Virginia Tech's Global Change Center, Dr. Hopkins serves the commonwealth and broader scientific community as one of the world's leading experts on the impact of human disturbances on wildlife, providing input on important environmental issues to decision makers in Richmond and Washington, D.C. Dr. Hopkins is an award-winning teacher, mentor, and researcher. His contributions to his disciplines include more than 190 peer-reviewed works and service on four committees in the National Academies of Sciences, Engineering, and Medicine. Dr. Hopkins is a committed teacher and advocate for experiential learning, engaging his undergraduate students in research, and leading them on study abroad programs in South America. Because Dr. Hopkins is regarded as a thought leader among the faculty at Virginia Tech, we often call upon him for University-level service, strategic visioning for the future, and inspirational messaging (e.g., commencement speaker and several presentations to the Board of Visitors). He provides invaluable support for Virginia Tech's land-grant mission to improve quality of life and the human condition, and his work strengthens SCHEV's efforts to promote higher education in Virginia. I am proud to enthusiastically recommend him for this prestigious distinction.

**Paul M. Winistorfer, Ph.D., Dean, College of Natural Resources and Environment, Virginia Tech.** William Hopkins researches, teaches, and serves in the rarified air of the most capable, accomplished, prolific, and impactful scientists at Virginia Tech. His focus on physiological ecology, conservation, and wildlife ecotoxicology is critical for the future success of the planet. The metrics of his research program include high levels and diverse sources of competitive funding, production of successful graduate students, and being the most cited faculty member in our College. Dr. Hopkins brings his scientific expertise and wise reason to countless local, state and federal partners, and the National Academies of Sciences. He is a rare scientist who successfully brings together the best and brightest minds of a diverse faculty and students to tackle the biggest global challenges. His vision to establish and lead the Global Change Center exemplifies interdisciplinarity, leadership, and impact at its finest. He is intellectually superior but maintains a humbleness that is rare and admired. His emotional intelligence is off the chart. Seldom among such accomplished individuals is one who is personally aware, and aware of those around him, in that he lifts everyone around him up to achieve greater things.

**Dennis R. Dean, Ph.D., University Distinguished Professor, Founding Director, Fralin Life Sciences Institute, Virginia Tech.** In my nearly forty years as a Virginia Tech professor and senior administrator I have never known a person, with the exception of Dr. Hopkins, that has demonstrated extraordinary excellence in all four of the SCHEV award categories. For decades, Virginia Tech did not enjoy a high level of international recognition in the environmental sciences. This all changed when Dr. Hopkins conceived of, and then implemented, the Global Change Center (GCC), which is among the strongest programs in the world and is now a treasure to Virginia Tech and the Commonwealth. It is fair to say that the level of success of the GCC has provided a roadmap and set the bar for other university-level centers. Given the time required to operate a world class center, involving ~80 faculty and numerous academic departments, it is astonishing that Dr. Hopkins has been able to maintain a robust research program operating at the highest level, extramural funding nothing short of spectacular, nearly perfect evaluation scores for both undergraduate and graduate instruction, and impactful contributions to University and National service. The GCC encapsulates Dr. Hopkins' passion for performing important research, seeking relevant application of research to public policy, and integrating research and educational opportunities in the context of the land grant ethos.

**L. Michael Romero, Ph.D., Professor of Biology, Tufts University.** Dr. Hopkins is one of the foremost conservation physiologists in the world, and at the vanguard of this burgeoning new field. He is also a gifted speaker and a major presence at International conferences, where he

“packs the room” when presenting. Furthermore, Dr. Hopkins is an icon for motivating excellence in young scientists. His outstanding mentoring to young women scientists has resulted in many accepting prestigious appointments at other institutions. One former student pursued her postdoctoral studies with me, and she was by far the best-prepared postdoc I’ve ever had. In sum, Dr. Hopkins is a world-class scientist and mentor making profound impacts on several fields. Virginia Tech is lucky to have him.

**John M. Eadie, Ph.D., D.G. Raveling Chair, Dept. of Wildlife, Fish and Conservation Biology, University of California, Davis.** Dr. Hopkins is an absolutely stellar scientist with a world class reputation who excels not just in one but in multiple fields, covering a remarkably broad range of subjects. He is a prolific scholar with annual citation rates of 700 per year, a testament to how wide-reaching and impactful his research is. His publication list demonstrates powerfully his dedication to promoting his student’s work while ensuring top quality research, with many of his graduate and undergraduate mentees as first author in impactful journals. He is an absolutely superb mentor, teacher, and leader. Hopkins’ research is also highly relevant to the land grant mission, ensuring the critical translation from research on environmental problems to extension. He is the epitome of the land grant scientist, excelling at the highest levels in research, teaching and training, and outreach and extension. I am, frankly, in awe.

**Amanda Wilson Carter, Ph.D., NSF Postdoctoral Fellow, University of Tennessee, Former Undergraduate Mentee.** As an undergraduate researcher, Dr. Hopkins invested endless energy into my research and writing, which helped me steady my academic footing and inspired a self-confidence that allowed me to flourish. The head start I gained from him has compounded across my career, and he continues to offer support when I need it most. When I defended my dissertation, needed guidance on which post-doctoral position to accept, received a prestigious fellowship, or when COVID-19 threw a wrench in my trajectory—Dr. Hopkins was there to celebrate, to give advice, and to offer stability. He is the singular teacher and mentor I strive to emulate and the leader in the field to which I aspire.

**Sarah Budischak, Ph.D., Assistant Professor, W.M. Keck Science Department, Claremont College, Former M.S. Mentee.** Dr. Hopkins taught me to be an inclusive mentor and train students from diverse socio-economic and cultural backgrounds. I still reflect upon the conversation we had about how to weigh aptitude versus experience, given the lack of training opportunities for students from underserved backgrounds. In addition to fostering my development as a scientist and mentor, he is a constant role model and source of career and life advice. He helped me decide to pass-up offers from strong graduate and postdoctoral programs, for the advisors and projects that I was most excited to work on. During my PhD, I went through one of the most difficult things anyone can experience, the death of my spouse. This devastating event made me question my desire and ability to continue in science. Dr. Hopkins was a supportive, encouraging voice during this painful time whose honest, encouraging words put me on the right track. Finally, Dr. Hopkins is my only faculty mentor with a family, and I am deeply thankful for the example he sets for concurrently being an amazing father, mentor, and scientist.

**Leslie Hager-Smith, Mayor of Blacksburg, VA.** Dr. Hopkins is the epitome of the citizen scholar. He has partnered with Montgomery County schools to build bird boxes on school properties, augmented with lesson content on bird migration patterns; he participates in local science fairs every year; and he has become a featured speaker at community events. For example, a local farm + brewery hosts a series called, “Science on Tap,” and he was their inaugural speaker. The lecture series is enormously popular, and it’s an expression of his preeminence as a local source for reliable scientific data that he was their top choice. Good relations rely on good information – and we can be grateful that Dr. Hopkins is ‘on the job’ in our town.