Welcome back to another exciting year here in the Biology programs at Purdue University Fort Wayne. While there has been much said about town concerning the new arrangement between IU and Purdue and the management of our university we are still providing an excellent undergraduate and graduate program for our Biology majors. Our graduates have had great success as is detailed in this newsletter. We had 8 students just this past year accepted into medical school and almost double that number going on to graduate and other professional programs. We all should be proud of the success our graduates have had and the excellent course offerings in biology, chemistry and in all the STEM disciplines, as well as our strong liberal arts core curriculum that prepares our graduates to compete with students from any campus in this state. Get involved with research and work with other students and our professors on lab and field projects. Your college experience is what you make of it so be sure to take advantage of every opportunity that you can while here.

Frank V. Paladino Ph.D.
Jack W. Schrey Distinguished Professor Chair of Biology
CONGRATULATIONS TO OUR SUMMER 2017 GRADUATES

The following students received the Bachelor of Science degree:

Benjamin Gibson
Sushma Kancherla
Tyler Siewek
Jacob Torkeo

These students received the Master of Science degree:

Jinlong Han
Advisor: Associate Professor Punya Nachappa
Kumud Joshi
Advisor: Assistant Professor Vamsi Nalam
Shannon Kuznar
Advisor: Professor Frank Paladino

Hallel Paraiso
Advisor: Associate Professor Elliott Blumenthal
Elizabeth Sinclair
Advisor: Professor Frank Paladino
Callie Veelenturf
Advisor: Professor Frank Paladino

NEW TEACHING ASSISTANTS FOR 2017-2018

Quintin Bergman
Advisor: Professor Frank Paladino
Jonathan Danielson
Advisor: Associate Professor Punya Nachappa
Destin Furnas
Advisor: Professor Ahmed Mustafa
Emily Mettler
Advisor: Professor Frank Paladino
Alanna Noland
Advisor: Associate Professor Mark Jordan

Patrick Ransbottom
Advisor: Professor Bruce Kingsbury
Tyler Scoville
Advisor: Associate Professor Mark Jordan
Ian Silver-Gorges
Advisor: Professor Frank Paladino
Reine Sovey
Advisor: Professor Bruce Kingsbury
Jennifer Troy
Advisor: Associate Professor Robert Gillespie

NEW GRADUATE RESEARCH ASSISTANTS FOR 2017-2018

Shailesh Acharya
Advisor: Assistant Professor Vamsi Nalam
Gabriel Curtis
Advisor: Associate Professor Robert Gillespie
Geral’n McGee
Advisor: Associate Professor Punya Nachappa
Elspeth Pierce
Advisor: Associate Professor Mark Jordan

2017-2018 Graduate Teaching and Research Assistants. Front row: Candace Alexander, Jessica Hinson, Reine Sovey. Second row: Shailesh Acharya, Gabriel Curtis, Geral’n McGee, Jennifer Troy, Elspeth Pierce, Emily Mettler; Third row: Kelcy Tolliver, Rikki Ratsch, Areli Gutierrez, Alysa Hopkins; Back rows: Alanna Noland, Ian Silver-Gorges, Quintin Bergman, Alex Silowsky, Tyler Shuman, Tyler Scoville, Patrick Ransbottom, and Jonathan Danielson
(Not pictured: Destin Furnas, Jillian Josimovich, Monica Matthews, and Adam Yaney-Keller). (Photo: Biology, IPFW)

STUDENT CLUB OFFICERS FOR 2017-2018

Biology Club

President – Alyssa Laughlin
Vice President – Alyssa Hoffman
Secretary – Sarah Moh
Treasurer – Kaitlin Meyer
Faculty Advisor: Associate Professor Mark Jordan

Pre-Med Club

President – Paul Bojrab
Vice President – Paul Bojrab/Sarah Moh
Secretary – Sarah Moh
Treasurer – Victoria Littrel
Faculty Advisor: Professor George Mourad
STUDENT CLUB OFFICERS FOR 2017-2018 (CONTINUED)

**Beta Beta Beta- The Biology Honors Society (IPFW Chapter)**
- President – Kenneth Saillant
- Vice President – Abbigayle Dunlavy
- Secretary – Luke Landrigan
- Treasurer – Andrea Funk
- Historian – Janine Bennett
- Faculty Advisor: Assistant Professor Vamsi Nalam and Ms. Julie Feightner

**American Society for Microbiology (IPFW Chapter)**
- President – Janine Bennett
- Vice President – Kenneth Saillant
- Secretary – Tyler Bowers
- Treasurer – Paul Bojrab
- Public Relations – Andrea Funk
- Faculty Advisor: Associate Professor Tanya Soule

REGISTRATION - SPRING 2018

We strongly encourage you to speak to your advisor before registering for classes. If you are a senior registering and expect to graduate at the end of the current semester, be sure to apply for graduation.

The spring 2018 Schedule of Classes can only be viewed on-line starting Monday, September 11, 2017. No printed schedules are available.

Priority registration for spring semester 2018 begins October 16. Dates for processing are set by class standing (degree candidates, graduate students, and seniors go first). See the spring 2018 schedule information in your IPFW student handbook or the Registrar’s website for additional details. Student handbooks are available throughout the campus including the Student Government office located in Walb Union, room WU 225.

Seniors, Grad Students....begins October 16
Juniors, Honors Students, Student Athletes, Students with Disabilities ....begins October 23
Sophomores ....begins October 30
Freshmen ....begins November 6

Please note: listed below are tentative A and B electives for spring 2018.

**SPRING 2018 - BIOLOGY ELECTIVES**

**A Electives**
- BIOL 34500 - Vertebrate Biology (Lecture and Lab) Visiting Assistant Professor Scott Bergeson
- BIOL 43400 - Marine Community Ecology (Lecture and Lab) Professor Frank Paladino
- BIOL 50500 - Biology of Invert Animals (Lecture and Lab) Associate Professor Ben Dattilo
- BIOL 51810 - Biomedicine (Lecture) Professor Ahmed Mustafa
- BIOL 54110 - Invasion Biology (Lecture) Associate Professor Jordan Marshall
- BIOL 58200 - Ecotoxicology (Lecture) Associate Professor Robert Gillespie

**B Electives**
- BIOL 35000 - Plant Physiology (Lecture and Lab) Assistant Professor Vamsi Nalam
- BIOL 50900 - Molecular Biology and Applications (Lecture) Professor George Mourad
- BIOL 53700/56500 - Immunobiology (Lecture and Lab) (Professor Elliott Blumenthal)
- BIOL 54400 - Principles of Virology (Lecture) Assistant Professor Jaiyanth Daniel
- BIOL 58400 - Molecular Biology and Application (Lab) Assistant Professor Vamsi Nalam

**STUDENT NEWS**

In July, Jillian Josimovich (Research supervisor: Professor Bruce Kingsbury) won the Victor Hutchison Student Poster Award in the Conservation & Management division from the Society for the Study of Amphibians and Reptiles at the Joint Meeting of Ichthyologists and Herpetologists in Austin, TX. She was awarded $200 and a textbook of her choice from their publishing company, CRC Press.
STUDENT NEWS (CONTINUED)

A blog from an alumnus: Dr. Tim Bruce

My name is Tim Bruce [B.Sc. University of Western Ontario (2008), M.S. Biology, Purdue University (IPFW, 2011), and Ph.D. Fisheries Sciences, South Dakota State University (2016)], and I am an alumnus of IPFW who has continued to work and research in the area of fish health and nutrition. I started at IPFW in 2009 and pursued a M.S. in Biology. During my IPFW graduate studies, I became interested in aquaculture immunology and physiology while participating in finfish feeding trials within Dr. Ahmed Mustafa's laboratory. While assisting in Dr. Mustafa's lab, I had the opportunity to learn techniques for studying innate immunity and stress responses in aquaculture species. Following the completion of my M.S., I made a decision to continue aquaculture physiology research and began my Ph.D. under Dr. Michael Brown at South Dakota State University. My dissertation research evaluated the immunological responses of rainbow trout and yellow perch fed bioprocessed soybean meal as a fishmeal replacement. I also had an opportunity to work for Prairie AquaTech, an animal health and nutrition company, while pursuing my graduate studies. While working with the start-up company, I participated in several projects involving commercial aquaculture, such as oral vaccine development, disease challenge trials, and large-scale production feeding trials. Following the completion of my Ph.D. in 2016, I started as the Aquatic Animal Health Specialist for the Missouri Department of Conservation (MDC).

Currently, my position has statewide responsibilities for fish health at 9 MDC hatcheries and I participate in several aspects of disease surveillance, biosecurity, and public support with wild fish stocks in Missouri. While working for the MDC, I am also continuing aquaculture research within the hatchery system to provide Missouri anglers with healthier production stocks.

Where are our alumni now?

Melissa Beaty (completed M.S. Thesis in Dec 2016 under the supervision of Assistant Professor Jaiyanth Daniel) has started a teaching position in microbiology at the Johnson County Community College, Kansas City, MO from Fall 2017. Jamison Law (completed M.S. Thesis in May 2017 under the supervision of Assistant Professor Jaiyanth Daniel) has started in a job as a Research Assistant at the Department of Chemistry and Biochemistry, Ohio State University, Columbus, OH and works with Prof. Gopalan on RNA processing in an infectious bacterium.

Parker Martin has been accepted into the Pharmacy program at Manchester University College of Pharmacy.

Megan Wyatt has been accepted into the Biomedical Sciences Program at Marian University College of Osteopathic Medicine.

ALUMNI NEWS

FACULTY/STAFF NEWS

Promotion with tenure: Dr. Punya Nachappa and Dr. Tanya Soule

Dr. Punya Nachappa and Dr. Tanya Soule have been promoted to associate professor ranks with tenure starting from fall 2017. Congratulations professors.
FACULTY/STAFF NEWS (CONTINUED)

Induction into FACET: Dr. Tanya Soule

Associate Professor Tanya Soule has been selected to be a member of the Faculty Academy on Excellence in Teaching (FACET). FACET is Indiana University’s Faculty Colloquium on Excellence in Teaching. Members are chosen through an annual campus and statewide peer review process. FACET members address the challenges of collegiate teaching, develop and share strategies to enhance pedagogy and practice, and advance the IU Faculty Teaching Mission. Congratulations, Dr. Soule.

Faculty in focus: Dr. Scott Bergeson

Dr. Scott Bergeson, the newest faculty in biology, is a wildlife biologist who (currently) focuses his research on the habitat selection and thermoregulation of Midwestern bats. Scott received his Bachelor of Science from Southern Illinois University in 2009, his Master of Science from Ball State University in 2012, and his PhD from Indiana State University in 2017. Scott actively participates in the conservation of bats throughout the world; serving on the committees of several regional and international bat working groups and disseminating his knowledge and research to the public, professional conservationists, academics, and government officials in the form of outreach activities, academic presentations, and published manuscripts.

He is currently involved in the process of preserving land near Indianapolis, IN that is extremely important to the conservation of the local/regional endangered Indiana bat population. Scott also recently conducted research in Oxapampa, Peru; surveying the diversity and abundance of local bat species in an area that had seen little attention. In general, Scott is a field ecologist who has a lot of experience “wrestling” and researching a lot of fun furred/scaled/feathered creatures. He invites you to come to his office anytime (SB 340) to chat or to take a look at his collection of close-up photos of creatures that people really shouldn’t get too close to.

Professor Paladino at the International Sea Turtle Society meeting

Professor Frank Paladino, president of the International Sea Turtle Society is presenting ISTS President’s Award 2017 to Professor James Spotila in recognition of his lifetime achievement toward the study and conservation of sea turtles. (Photo: Frank Paladino)

Early College Programs

Under the Perkins Program for STEM, administered by the Office of Diversity and Multicultural Affairs, Dr. Parveen Quarrar will be working from fall 2017, in the Early College Programs for Northeast Indiana through Vincennes University. Together with Dr. Odeleth Nance, Assistant Dean of Vincennes University, Dr. Quarrar, as the “Biology Department Representative”, will provide lectures for the Plant & Animal Biology classes to North Side High School and East Allen University students and teachers, and will train IPFW biology students to work with the high school students and teachers.

Three IPFW Biology students have been selected to help Dr. Quarrar with the project. They are Kenneth Saillant, Destin Furnas and Ashley Baum.

Dr. Parveen Quarrar and her teaching team. Photo (Left to right) – Ashley Baum, Destin Furnas, Ken Saillant and Dr. Parveen Quarrar. (Photo: Austin Petras)

VISITING SCHOLARS

Department of Biology had three short-term visiting scholars this year. Dr. Khizar Samiullah and Mrs. Riffat Yasin came from Pakistan with fellowships provided by the Higher Education Commission of Pakistan, and Mrs. Farjana Islam came from Bangladesh with a fellowship provided by the American Institute of Bangladesh Studies. Riffat and Farjana worked under Professor Ahmed Mustafa to learn research and teaching while Khizar worked under Associate Professor Ben Dattilo and analyzed fossils of bones and gastropods.

Short-term visiting scholars in biology. Photo (Left to right) - Dr. Khizar Samiullah, Ms. Farjana Islam, and Ms. Riffat Yasin. (Photo: Ahmed Mustafa)
RECENT (2017) BIOLOGY GRANTS

Professor Frank Paladino has received the following research grants:
1. Hess Oil Corporation, Environmental Grant, $286,000 (CoPI: S. Honavar)
2. Goldring Family Foundation, Marine Education and Research Grant, $500,000

RECENT (2017) BIOLOGY PUBLICATIONS


RECENT (2017) BIOLOGY PRESENTATIONS

Ahmed Mustafa. Stress in aquaculture: it’s time to control. 147th Annual Meeting of the American Fisheries Society. Tampa, Florida, USA. August 20-24, 2017. (Professor Ahmed Mustafa also chaired the fish culture section of the meeting).

Professor Ahmed Mustafa with his former student and an IPFW alumnus Dr. Timothy Bruce. (Photo: Ahmed Mustafa)

Janine Bennett, Michaela Miller, and Tanya Soule. The contributions of scytonemin in coping with oxidative stress in cyanobacteria. American Society of Microbiology annual meeting- Microbe, New Orleans, LA. Janine Bennett was elected Student Representative of the Executive Branch of the American Society for Microbiology (IBASM). Janine also received the ASM Student and Postdoctoral Travel Award for $500.

Janine Bennett at the 2017 Annual Meeting of the American Society of Microbiology. (Photo: Tanya Soule)

At the 2017 Indiana Branch of the American Society for Microbiology annual meeting, held at Turkey Run State Park, IN, the following presentations were delivered by biology team:

Janine Bennett, Michaela Miller, and Tanya Soule. The role of scytonemin in the adaptation to oxidative stress in cyanobacteria.


Aaron Jones, Elliott Blumenthal, and Tanya Soule. Anti-proliferation of melanoma cells and immune stimulation by the cyanobacterial indole-alkaloid scytonemin.


IPFW Faculty and students at the Indiana Branch of the American Society for Microbiology annual meeting, Turkey Run State Park, IN. Photo (L-R): Janine Bennett, Gabriela Romo, Aaron Jones, Associate Professor Tanya Soule, Taylor Smith-Grabber, Jamison Law, Amanda Martin, and Assistant Professor Jaiyanth Daniel. (Photo: Tanya Soule)
**RECENT (2017) BIOLOGY PRESENTATIONS (CONTINUED)**

Former and current Paladino students who attended the 37th International Sea Turtle Meeting in Las Vegas, NV, April 2017.

At the 2017 Midwest Partners in Amphibian and Reptile (MWPARC) Meeting, Bradford Woods, Indiana. Eleven graduate students attended the meeting, eight of which made research presentations. (Photo: Frank Paladino)

At the 2017 Midwest Partners in Amphibian and Reptile (MWPARC) Meeting 2017, Bradford Woods, India, the following presentations were delivered by biology team:

**Hinson, J., R. Sovey, M. A. Jordan, and B. Kingsbury. 2017.** Trapping success of Spotted Turtles (Clemmys guttata) and Blanding’s Turtle (Emydoidea blandingii) in northern Indiana. Midwest Partners in Amphibian and Reptile Conservation Meeting. Martinsville, IN, 18 August 2017.


**GUEST PRESENTATIONS**

Dr. SMA Rashid, Chief Executive of the Centre for Advanced Research in Natural Resources & Management (CARINAM), Bangladesh has presented a seminar on “Conservation in action” on 18 August 2017. (Photo: SMA Rashid)

Dr. SMA Rashid with his team in Sundarbans—one of the largest mangrove forests in the world (140,000 ha), lies on the delta of the Ganges, Brahmaputra, and Meghna rivers on the Bay of Bengal.

Dr. Cankui Zhang, Assistant Professor of Agronomy, Purdue University has presented a seminar on “Phloem: a major player for carbon transport, plant development and stress signaling” on September 15, 2017. Dr. Zhang likes to use his knowledge in basic plant biology to improve the quality and productivity of crops. His research focuses on the yield improvement via the manipulation of carbon partitioning; whole plant signaling under either abiotic (mineral deficiency) or biotic (root-microbe interactions) stress; genetic engineering to increase Fe/Zn accumulation in tubers and seeds; and heat/drought stress. Crops involved in his research include maize, soybean, rice, wheat, and tomato.

Dr. Cankui Zhang (Photo: Purdue University; https://ag.purdue.edu/agry/directory/Pages/zhan2041.aspx)

**BIOLOGY FACEBOOK**

IPFW Department of Biology has a Facebook now (https://www.facebook.com/IPFW-Department-of-Biology-231430077377306/?ref=br_rs). Check our Facebook page for updates and highlights.

**BIOLOGISTS IN THE FIELD**

IPFW faculty, staff, guests, and students taking a break to view the eclipse on the first day of classes. (Photo: Vamsi Nalam).
Welcome back to another exciting year here in the Biology programs at Purdue University Fort Wayne. While there has been much said about town concerning the new arrangement between IU and Purdue and the management of our university we are still providing an excellent undergraduate and graduate program for our Biology majors. Our graduates have had great success as is detailed in this newsletter. We had 8 students just this past year accepted into medical school and almost double that number going on to graduate and other professional programs. We all should be proud of the success our graduates have had and the excellent course offerings in biology, chemistry and in all the STEM disciplines, as well as our strong liberal arts core curriculum that prepares our graduates to compete with students from any campus in this state. Get involved with research and work with other students and our professors on lab and field projects. Your college experience is what you make of it so be sure to take advantage of every opportunity that you can while here.

Frank V. Paladino Ph.D.
Jack W. Schrey Distinguished Professor Chair of Biology