

OADDL E-News

In this Issue

| | |
|---|---|
| CVHS Announces New Dean | 1 |
| Necropsy Wet Lab for Students..... | 1 |
| <i>Pelodera</i> Dermatitis | 2 |
| Blue-Green Algae Testing at OADDL..... | 3 |
| Director's Note..... | 4 |
| Getting to Know Us | 4 |
| Request for Feedback..... | 4 |

Faculty

Director:

Dr. Keith L. Bailey – Pathology

Assistant Director/Quality Manager:

Emily J. Cooper

Microbiology/Molecular Diagnostics:

Dr. Akhilesh Ramachandran

Parasitology:

Dr. Yoko Nagamori

Pathology:

Dr. Melanie A. Breshears

Dr. Anthony W. Confer

Dr. Rupika DeSilva

Dr. Grant Rezabek

Dr. Jerry Ritchey

Dr. Tim Snider

Serology:

Dr. Grant Rezabek

Graphic Design/Layout:

Clarissa Walton

CVHS Announces New Dean



Dr. Carlos Risco was named Dean of OSU's Center for Veterinary Health Sciences on October 18. Dr. Risco currently serves as Professor and Chair of the Department of Large Animal Clinical Sciences at the University of Florida and is a diplomate of the American College of Theriogenologists (ACT).

"I am very excited for the opportunity to serve as Dean, Center for Veterinary Health Sciences, Oklahoma State University," Dr. Risco said. "Among the many qualities of the

Center that attracted me to this position is the opportunity to work with the talented faculty and staff of the Oklahoma Animal Disease Diagnostic Laboratory. This lab is uniquely equipped to resolve evolving health issues of the diverse animal industries in the state. I am looking forward to work closely with animal owners and livestock producers throughout the state to help meet their needs."

Dr. Risco will be starting at CVHS on or about March 1, 2018.

Oklahoma State CVHS, OADDL, and Zoetis teamed up to create a Necropsy Wet Lab for Students

This wet lab had 41 students in attendance from clubs including American College of Veterinary Pathologists (Pathology Club), American Association of Bovine Practitioners,

and American Association of Small Ruminant Practitioners. Zoetis brought in Dr. Douglas Hilbig, a beef technical services veterinarian, to perform stan-

continued on page 2



CENTER FOR VETERINARY HEALTH SCIENCES
Healthy Animals — Healthy People

Oklahoma State CVHS, OADDL, and Zoetis teamed up to create a Necropsy Wet Lab for Students *continued from page 1*



dard procedure of field necropsies. OADDL's own Dr. Tony Confer, shared his expertise to explain lung lesions in the necropsies that were performed and some sampling techniques. Dr. Erin Stayton also was in attendance to assist

Dr. Confer with lung lesions. Students received hands-on experience, giving them insight why necropsy is important in diagnosing diseases.

— Kyre Larrabee



Pelodera Dermatitis in an Oklahoma Dog

An approximately 1-year-old, intact female, Australian shepherd-mix dog was presented to Marlow Veterinary Clinic in Marlow, OK with a 1-month history of alopecia, hyperemia, and pruritus on the ventral abdomen, lateral side of hind legs, and upper lips (Figs 1 and 2). The dog was kept outdoors on a farm with some goats; straw was used for bedding.

Skin scraping performed at the veterinary clinic revealed a moderate number of motile nematode larvae (Fig 3). Samples were forwarded to the parasitology laboratory at OADDL and diagnosed as *Pelodera strongyloides*. *P. strongyloides* is a saprophagous, free-living nematode found in decaying organic matter or moist soil. Under suitable conditions, the nematode may parasitize living animals, resulting in a pruritic, hyperemic dermatitis.

Pelodera infestation has been reported in dogs, cattle, horses, sheep, rodents, seals, bears, cats, and humans. The dog was treated with topical moxidectin/imidacloprid, and her bedding area was cleaned. Ten days after the treatment, the skin was less erythematous and the pruritus had resolved.

— Megan Wohltjen & Dr. Y. Nagamori



Fig. 1. Dermatitis on ventral abdomen (A) and caudal thigh (B) of a dog. Photos courtesy of Drs. Graf and Albin at Marlow Veterinary Clinic.



Fig. 2. Ulcerations on upper lip of a dog.



Fig 3. *Pelodera strongyloides* larva recovered by skin scraping.

Blue-Green Algae Testing at OADDL

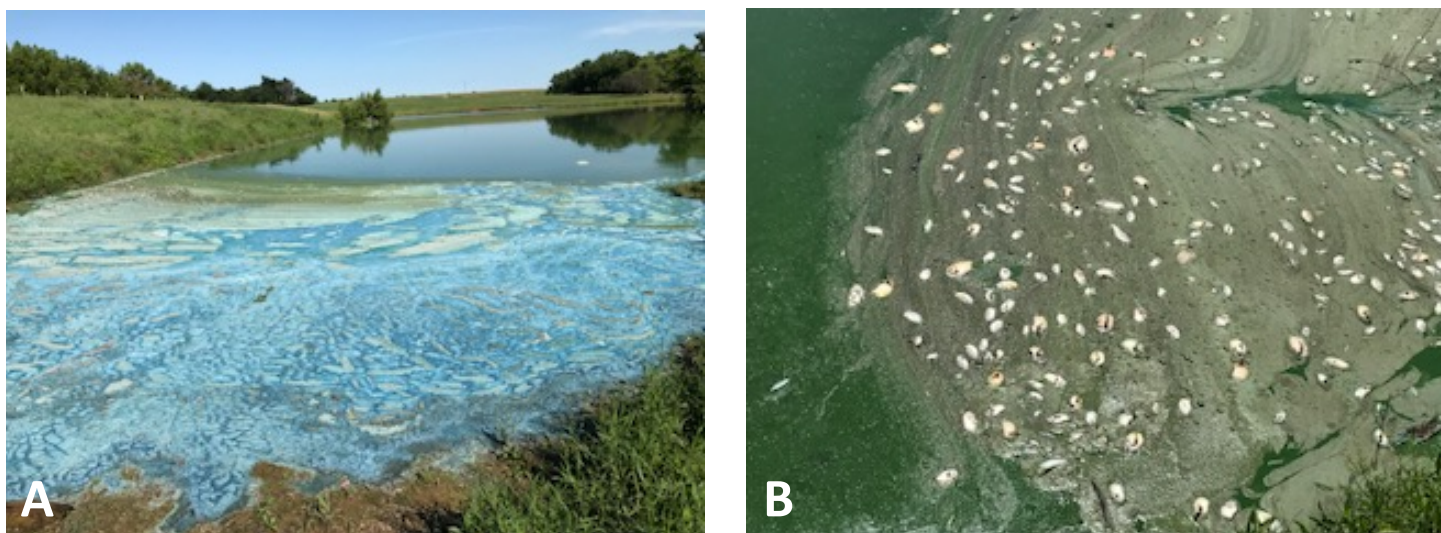


Fig 1. Blue-green algae on a lake in Stephens County, OK. Note the prominent blue discoloration on the water surface (A). A large number of fish died during this algal bloom (B). Photo courtesy Dr. L. Graf at Marlow Veterinary Clinic.

Blue-green algae (BGA) are a group of photosynthesizing bacteria that flourish in lakes and ponds under favorable environmental conditions. They can form a floating mat or scum, referred to as algal “bloom”, on the surface of lakes and ponds, and may contribute to fish mortality (Figure 1). In Oklahoma, “blooms” are most prevalent during the warmer months between June and August (Table 1). In the past two years, water samples from 23 Oklahoma counties tested positive for BGA at OADDL (Figure 2).

Microscopic examination of water samples is performed at OADDL for identification of BGA. The commonly identified BGA at OADDL are *Microcystis sp.*, *Anabaena sp.*, and *Oscillatoria sp.* BGA can produce neurotoxins and hepatotoxins that cause illness and fatalities in exposed humans and animals.

For more information about BGA, see the EPA's website: <https://www.epa.gov/nutrient-policy-data/cyanohabs>.

– Scott Talent & Dr. A. Ramachandran

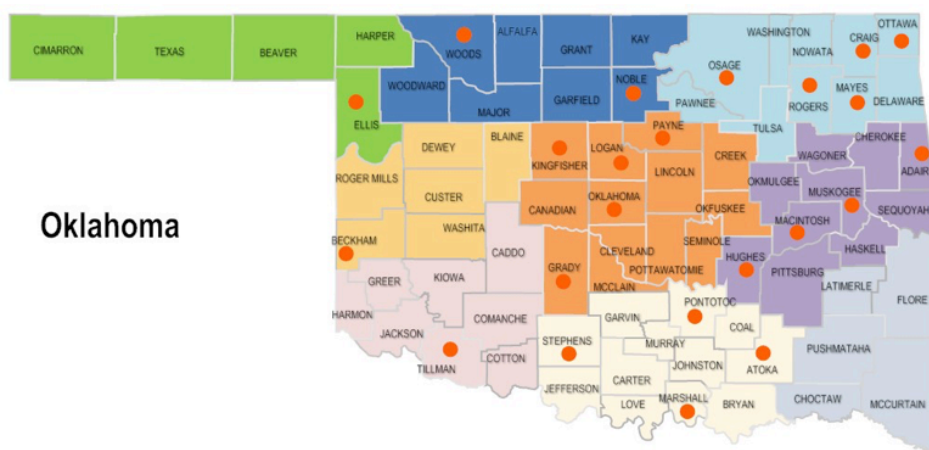


Figure 2. Map showing counties from which water samples tested positive for BGA at OADDL (orange dots). The colors of the counties correspond to different climate divisions in Oklahoma.

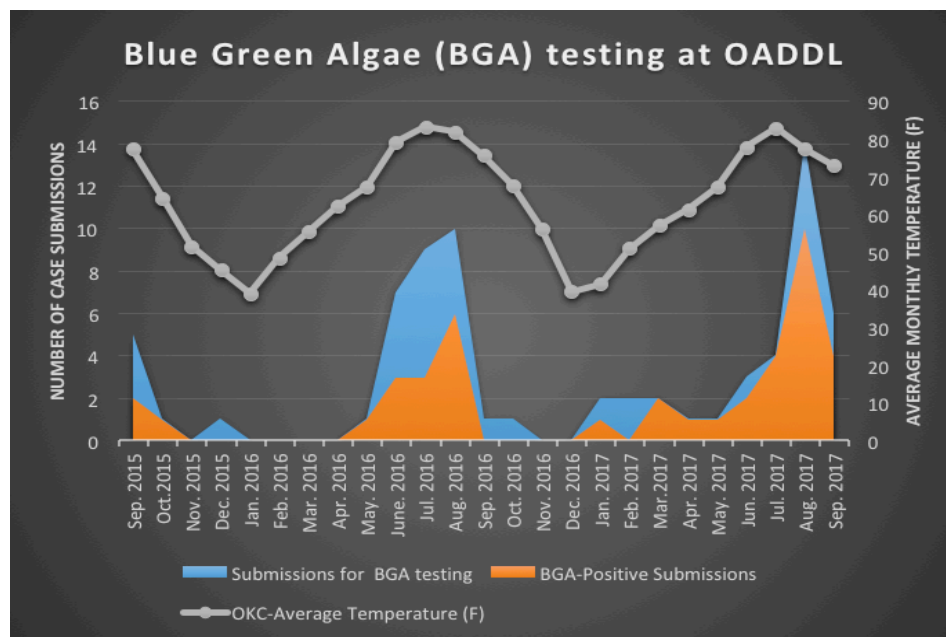


Table 1. Blue-green algae testing at OADDL from September, 2015 to September, 2017. Peak detection of BGA correlated with highest ambient temperatures.

Letter from the Director

We are excited to share this issue of our e-Newsletter, particularly the recent announcement that Dr. Carlos Risco will serve as the next Dean of CVHS.

Another exciting aspect of this issue includes case materials provided by our clients (special thanks to Dr. Graf and his team in Marlow!). Folks in our lab certainly enjoy learning more about cases and how our results impact the daily lives of our clients.

As we head into fall, I want to remind cattle producers and veterinarians to review herd nutrition. Over

the past 2 years, copper deficiency has been a common finding in cases of late-term bovine abortions and stillbirths at OADDL. In addition to reproductive failure, copper deficiency in cattle is associated with lameness, unthriftiness, decreased weight gain, diarrhea, poor hair coat, poor response to vaccination, and unexpected death.

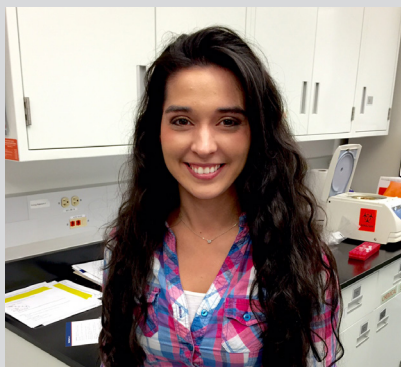
On behalf of the lab, we hope you enjoy the fall season and upcoming holidays.

– Dr. K. Bailey



Getting to Know Us

Courtney Strickland is originally from Muskogee, OK, but was raised in Fort Gibson, OK. She attended Northeastern State University in 2013 and transferred to Oklahoma State University in 2014; where she earned her bachelor's degree in Animal Science – Biotechnology in 2017. Courtney has been working for OADDL in the Molecular Diagnostics section since the beginning of June. Courtney is also a specialist in the Oklahoma National Guard where she is working to become a CBRN officer.



In her free time, she enjoys baking, painting, reading, and spending time with her dog Whiskey.

Alison Roets is originally from the small town of Wilburton, OK. She moved to Stillwater to attend Oklahoma State University where she received a bachelor's degree in Animal Science in 2015. Alison enjoys fishing, binge watching Netflix, four wheeling, playing video games, food, shooting her bow, being outside, and playing with her dogs, Knockout and Tattoo.




Ideas/Suggestions for Future Content

We want to hear from you. Send us your ideas and suggestions to oaddl@okstate.edu.

Contact Us

Oklahoma Animal Disease
Diagnostic Laboratory
Ph: 405-744-6623
Fax: 405-744-8612

www.cvhs.okstate.edu/oaddl

 Follow us on Facebook

