How to get a worm named after you

APRIL 8, 2015 / KELLY APRIL TYRRELL

Two sick ball pythons that arrived at the UW Veterinary Care Special Species Service, infected with a newly identified species of roundworm, named for Richard Dubielzig, an emeritus professor at the University of Wisconsin-Madison School of Veterinary Medicine. //Photo by Nik Hawkins, UW School of Veterinary Medicine

The following is a guest post from Nik Hawkins, director of communications and public relations for the UW-Madison School of Veterinary Medicine:

Being the namesake for a new species of tiny, eyeball-infecting roundworm might seem
a dubious honor for most people, but not if you’re an expert in animal eye diseases. So it comes as no surprise that Richard Dubielzig, professor emeritus of comparative ocular pathology at the UW School of Veterinary Medicine (SVM), was pleased to lend his moniker to *Serpentinhabdias dubielzigi*, a newly described serpent eye parasite.

The recognition was made official this month with the publication of a new report in the journal *Comparative Parasitology*, authored by a group of researchers from the Cornell University College of Veterinary Medicine. The naming credit came to Dubielzig months ago in a roundabout way through a collaboration of experts across the country, including several from the SVM.

It began when two sick ball pythons arrived at the UW Veterinary Care Special Species Service, where Christoph Mans, clinical assistant professor of zoological medicine, and resident Jennifer Hausmann discovered a roundworm infection in the snakes’ eyes and mouths. Unfortunately, the worms caused such severe tissue damage the pythons had to be euthanized.

Mans and Hausmann requested a necropsy (animal autopsy), which Jennifer Dreyfus, a clinical instructor of pathobiological sciences, conducted with help from Dubielzig, who has focused on ocular pathology throughout most of his 40-plus-year career. When viewed under a microscope, they recognized the worms likely belonged to the Rhabdiasidae family, but they did not know which species.

“There are primarily free-living worms, but some species can sometimes parasitize animals,” says Dubielzig. “Parasitologists have probably seen these particular ones before and ID’d them as worms but took it no further.”

Not so for the SVM experts, whose curiosity was piqued. In an attempt to pinpoint the species of the mystery worms, they sent samples of the python tissue to another expert, Dwight Bowman. Now a professor of parasitology at Cornell, Bowman had worked with Dubielzig while a postdoc at the SVM from 1984 to 1987 and the two have collaborated on worm ID ever since.

In contemporary wanted poster style, the two also posted images of their microscope slides on social media.
Drury Reavill of Zoo/Exotic Pathology Service in West Sacramento, Calif., happened upon the slides on Facebook and recognized similarities to worms she had encountered previously in samples from a ball python from Virginia. She sent her own specimens to Bowman, and his research team confirmed the species in the Wisconsin and Virginia cases were identical. Further analysis of the DNA as well as physical features of intact adult worms from the Virginia samples revealed them to be unlike any previously described Serpentirhabdias worms. With a new species in hand, they needed a name.

“I have not yet had the chance to meet Dr. Dubielzig, but Professor Bowman speaks very highly of him and his accomplishments,” says Araceli Lucio-Forster, a research support specialist for Bowman and lead author on the report. “There was no question, once it was obvious to us this was likely a new species, who it was to be named after.”

The legacy caps a distinguished career for Dubielzig, one that has seen him establish a mail-in service for veterinary medical ophthalmologists that sees more than 3,000 specimens per year; author more than 280 research papers, 380 published abstracts, and 20 book chapters; and serve as the primary author of a text devoted to veterinary ocular pathology.

“I’m happy and very proud to have my name as an identifier for this little worm,” says Dubielzig.

A second article, co-authored by Hausmann, Mans, Dreyfus, Reavill, Lucio-Forster, and Bowman, describes in detail the characteristics of the infection found in the ball pythons. It is scheduled to publish in the Journal of Comparative Pathology later this month.