

AAV NEWSLETTER

AN OFFICIAL PUBLICATION OF THE ASSOCIATION OF AVIAN VETERINARIANS

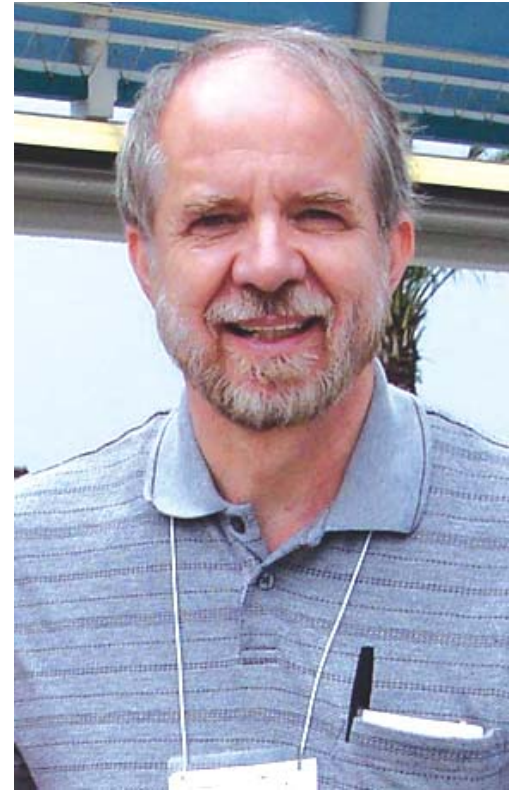


SEPTEMBER 2009

OSU Veterinary Center Announces Distinguished Alumni Award Recipients

(August 20, 2009 Stillwater, OK) – The Oklahoma State University's (OSU) Center for Veterinary Health Sciences announced the 2009 OSU College of Veterinary Medicine Distinguished Alumni Award recipients today. With many highly qualified alumni nominated, the Alumni Association officers selected Drs. James W. Carpenter ('74), Anthony W. Confer ('72), Robert S. Hudson ('55) and Gary L. White ('68).

Carpenter is a Professor, Department of Clinical Sciences, College of Veterinary Medicine, Kansas State University, and is internationally recognized as a clinical and research veterinarian in exotic animal, wildlife, and zoo animal medicine. He is the author of 350 scientific papers, book chapters, and proceedings articles, and editor of two books on exotic animal medicine. He is the former Editor of the *Journal of Zoo and Wildlife Medicine* and the present Editor-in-Chief of the *Journal of Avian Medicine and Surgery*. He was named Exotic DVM of the Year for 2000, and was awarded the Edwin J. Frick Professorship in Veterinary Medicine from the KSU CVM in 2002. Carpenter is the Past-President of both the American Association of Zoo Veterinarians and the Association of Avian Veterinarians, and is the current President of the American College of



James Carpenter, MS, DVM, Dipl. ACVM,

Zoological Medicine.

Dr.s Anthony W. Confer ('72), Robert S. Hudson ('55) and Gary L. White ('68) were also selected for awards.

Message From the Immediate Past-President, Karen Rosenthal

As we start a new year for the AAV, it is important to recognize those who are not given public awards or recognition at our ceremonies, or those who do not always get up to speak. I would like to recognize and thank the initial donors to our research endowment fund. We have chosen to endow a research fund to ensure we have a steady stream of dollars for research. Currently, the depth of our research fund

changes yearly based on proceeds from our conference, the auction, and other activities. The AAV board decided that we needed a more permanent source of funding to ensure sufficient funds each year for the amount of research we would like to support. The plan is for the endowed research fund to supply funding by using the interest only, without touching the principle. Many thanks to those members who have provided the foundation for this project.

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Cover photographs courtesy of Bob Perry, UK,
www.geocities.com/bobperry5148.
Cover color design by IndigoHorse.
www.indigohorse.com

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New Study examines toucan's Bill

For centuries, scientists have puzzled over why the toucan's bill is so large - but now one team thinks it might have an answer.

Writing in the journal *Science*, the researchers say that the toucan uses its enormous beak to stay cool.

They used infrared cameras to show the bird dumping heat from its body into its bill, helping it to regulate its body temperature.

The toucan has the largest bill of any bird, relative to body size. It makes up about one-third of its total body length.

The oversize appendage has received many different interpretations: Charles Darwin thought it might be used to attract mates, more recent ideas center on fruit peeling, nest predation and visual warnings. Darwin thought that the beak could be a sexual ornament

To investigate further, a team of researchers from Brock University, Canada, and Universidade Estadual Paulista, Brazil, looked at the toco toucan (*Ramphastos toco*), which has the biggest bill of all the toucans.

Dr Glenn Tattersall, the lead author of the paper, from Brock University, said: "We used infrared thermal imaging technology to assess the surface temperature of the bill of toucans while they were encountering a range of air temperatures from 10C to 35C.

"This allowed us to measure the exact temperature of the bill."

The scientists found that as the surroundings got warmer, the toucan's bill would rapidly heat up, effectively acting as a radiator to draw heat away from the bird's body, allowing it to stay cool.

Conversely, in cooler temperatures, little heat would radiate from the bill, letting the bird conserve its warmth.

As the surroundings heat up, the toucans dump body heat into their bills. The effect was particularly evident at night: at sunset, the birds would, in a matter of minutes, pump out heat from their beaks, lowering their body temperature as they slept.

The birds' bills have a network of blood vessels that can increase or

restrict the flow of blood.

Dr Tattersall said: "By altering blood flow to the bill's surface, toucans can conserve body heat when it is cold or cope with heat stress by increasing blood flow.

"Essentially, the large surface area of the bill, and the fact it is not insulated, means that the blood flowing through is able to release heat into the bill, thus cooling the bird.

"This blood-derived heat in the bill is then dissipated into the air."

The sheer size of the toucan's bill means that relatively, it has one of the largest "thermal windows" in the animal kingdom.

The Science study also shows that the toucan is extremely effective at controlling its body heat with it: its bill can account for as much as 100% of body heat loss or as little as 5% if the blood flow is shut off.

Dr Tattersall explained: "Bird bills are not 'dead tissues', incapable of playing a role in heat balance, but are active contributors to thermoregulation."

He added: "Birds do not sweat, so must cope with other mechanisms to deal with elevated temperatures."

The researchers say that the finding that the toucan uses its beak to regulate body temperature does not rule out its other suggested functions.

The team now plans to look at other birds to see how their bills are involved with temperature regulation.

2009 Proceedings, Milwaukee, WI

The digital copy of the 2009 proceedings is up on the AAV website. (www.aav.org). Select the link to *Publications* and then to *Proceedings*.

The access codes (members only) are:

User name: milwaukee2009

Password: AAVWISC

Access is case-sensitive. Non members will be denied access.

Hard copies may be ordered from the publications office. (\$55+ shipping).

There are also a small number of the proceedings from the combined Sunday program; AAV- Pre Surgical Patient; AEMV- Small Mammals (\$25)

Fax order to: 817-599-0088

Exotic DVM Magazine - DVM of the Year Award



August 14, 2009 – Dr. Paul Gibbons (above right) was selected by his peers as the recipient of the 2009 Exotic DVM of the Year award. The award was presented by Dr. Kevin Wright (above left) Last year's award winner, at the 16th Annual Association of Reptilian and Amphibian Veterinarians (ARAV) dinner and auction held at the Milwaukee Zoo.

Currently, Dr. Gibbons directs the Exotic Species Specialty Service at Animal Emergency Center in Milwaukee.

Conservation Committee

AAV Committees Need YOU! The AAV offers a lot in terms of supporting research, scientific communication, avian conservation, and continuing educational opportunities. Did you know that most of this is accomplished by volunteer members? Your voice (and manpower) counts! Committees are the member's chance to have an impact on global avian health, welfare, and conservation issues. Please consider joining a committee today or attending a committee meeting at the annual conference. The standing meetings are open to all members including students. A list of committees and chairpersons can be found in the front of the AAV membership directory (on the website) or contact the Central Office at aavctrlofc@aol.com

*Candid shots from
Milwaukee*



Immediate Past-President, Karen Rosenthal (L); Rob Hilsenroth; President, Laurie Hess (R).



Conservation Tour- Riverboat trip on the Horicon Marsh, the largest freshwater marsh in the United States. A slide presentation following the boat trip showed the evolution of the marsh from a native American habitat up to present day.



Left: Bianca Zaffarano discusses the Harrison diets with representative, Richard Larson



Right: Veterinary Molecular Diagnostics Exhibit.

Call for Papers

Poster Abstracts

Waves of Wisdom
IN SAN DIEGO

**31st Annual Association of Avian Veterinarians
Conference & Expo
with the Association of Exotic Mammal Veterinarians**

**San Diego, California, USA
August 1-5, 2010**

Association of Avian Veterinarians
Advancing and Promoting Avian Medicine and Stewardship

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Included in this issue—Access codes to the 2009 Milwaukee Main Conference Proceedings