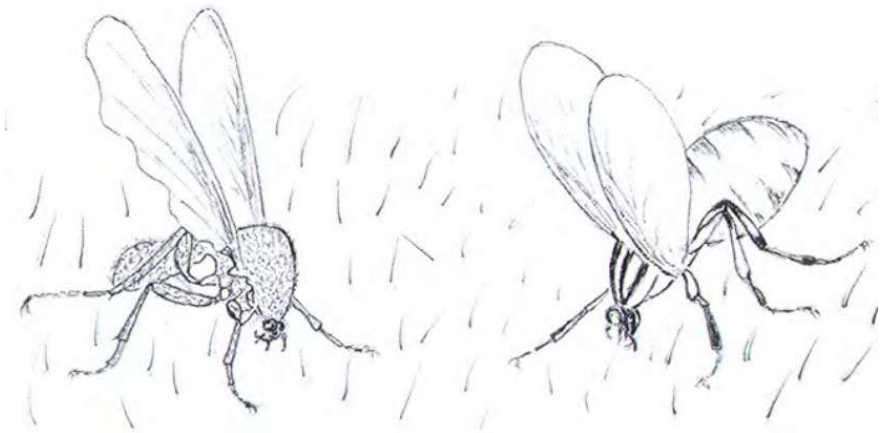


The Simuliid Bulletin

Number 62

August 2024



THE SIMULIID BULLETIN

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Cover Image: Females of the genera *Simulium* (left) and *Prosimulium* (right). According to the illustration by Leo Rivosecchi published in Rivosecchi et al. (2007).

From the Editor

After the successful symposium in Morocco, the 10th International Simuliidae Symposium will take place in Cappadocia, Türkiye. You are cordially invited to join us in sharing our research ideas with fellow colleagues, students, and black fly enthusiasts.

Regrettably, this year the simuliid community lost another member and an excellent medical and veterinary entomologist. Raymond Noblet, who dedicated his entire career to the study of black flies, passed away on 6 August 2024.

Tatiana Kúdelová, Editor

FORTHCOMING MEETINGS

X. International Simuliidae Symposium 2024

Welcome to SIMULIIDAE 2024 in Cappadocia, Türkiye

We cordially invite you to be a part of the **10th International Simuliidae Symposium**, which will take place in Dilek Kaya Hotel in **Cappadocia from 4th to 8th of November 2024**.

This prestigious event boasts a long-standing tradition and offers a platform for leading experts and enthusiasts to come together and explore various aspects of simuliidae, including interaction with other partners. The Erciyes University and Turkish Society for Parasitology are co-organizing the symposium to ensure an exceptional experience for all attendees. We are honored to announce Prof Peter ADLER from the Plant and Environmental Sciences Department, Clemson University, USA as the honorary president and keynote speaker. We have designated ample time slots for in-depth presentations of your research in the form of oral presentation or poster.

The conference will take place in the heart of Cappadocia, which boasts an extraordinary geodiversity of fairy chimneys, Maar Lakes, rhyolitic domes, sinkholes, river terraces, volcanic lava flow, and Salt Lake to badlands. Cappadocia is not only an open-air laboratory of geomorphology but also a cultural hotspot, richly steeped in heritage and history from early times.

Please make sure to regularly check for updates on key speakers, registration and other information.

We are looking forward to meeting you in Cappadocia!

On behalf of the organizing committee

Prof Alparslan YILDIRIM

Important dates:

Deadline for Early Registration(Including hotel accommodation)	30–Aug. 2024
Deadline for Late Registration (Including for Hotel reservation)	15–Oct. 2024
Deadline for submitting Title and Abstracts:	15–Sept. 2024

Topics:

- Ecology and Behavior
- Vector Biology and Disease Transmission
- Impact on Human and Animal Health
- Control and Management Strategies
- Monitoring and Surveillance
- Cytogenetics and Genomics
- Other

Registrations Fees

Category of delegates	Before 30.8. 2024 Euro (€)	After 30.8. 2024 Late fees Euro (€)
Academy	150	200
Students and pre-docs	100	150
Accompanying persons	Free	Free

Registration for the symposium will only be made via the website.

In order to benefit from discounted fees, registration must be made by August 30, 2024.

Services included in the registration fee:

- Participation in scientific programs
- Participation in social programs

- All congress materials (Congress bag, program booklet, media containing abstracts, participation certificate, name badge)
- Coffee and pastry treats
- Gala dinner

ACCOMMODATION

It is recommended that all accommodations be made at Dilek Kaya Hotel, which is the symposium hotel. Accommodation fees are included in the Full Board category (breakfast, lunch and dinner, a soft drink with meals).

Accommodation Fees

Category of delegates	Before 30.8. 2024 Euro (€)	After 30.8. 2024 Late fees Euro (€)
SINGLE ROOM (4 NIGHTS Full Board Pluss)	500	600
DOUBLE ROOM (4 NIGHTS Full Board Pluss)	720	864
SINGLE ROOM DAILY ACCOMMODATION EXTENSION	110	110
DOUBLE ROOM DAILY ACCOMMODATION EXTENSION	180	180

More information is available on the symposium website:
<http://www.hmr.com.tr/Kongre/en-US?kongre=x.-international-simuliidae-symposium>

XII International EMCA Conference & V EMCA Training Course, Antwerp, Belgium

The **XII International European Mosquito Control Association (EMCA) Conference** is scheduled to take place from **March 25th to March 28th, 2025**. This event will be hosted at the renowned Institute of Tropical Medicine (ITM), a leading center for tropical disease research and training in Antwerp, Belgium. The venue with its unique blend of tradition and modernity offers an inspiring setting for our conference.

In addition to the conference **V EMCA 1-day Training Course on Insecticide Resistance in Mosquitoes** will take place on **March 24th**. This intensive course will provide valuable insights and hands-on experience in addressing mosquito insecticide resistance, an increasingly critical issue in our field.

More information on registration (opens 30/09/2024), the conference agenda and the training course will be available on the website:

<https://www.emca-online.eu/xii-international-emca-conference-and-v-emca-training-course,-antwerp,-belgium,-1st-announcement>

OBITUARIES

Raymond Noblet (1943–2024)

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Elmer W. Gray, Department of Entomology, University of Georgia, Athens, GA 30602 USA; ewgray@uga.edu



Raymond Noblet sampling black flies, October 2011.

The black fly world recently lost one of its long-time simuliid workers, Raymond Noblet, on 6 August 2024, one day after his 81st birthday. Ray was one of the early workers involved in investigations of leucocytozoonosis and a pioneer in the laboratory

and field testing of *Bacillus thuringiensis* var. *israelensis* (*Bti*). Born the 8th of 10 children in the mountains of northeastern Georgia, USA, Ray attended Berry College in Georgia and in 1963 transferred to the University of Georgia, majoring in entomology. He supported his entire undergraduate program by himself, working in various jobs such as with the Agricultural Stabilization Conservation Service. Ray continued his studies at the University of Georgia, receiving a Master's of Science and a Ph.D., working with mosquitoes and malaria, a significant military problem during the Vietnam war.

In 1970, Ray was hired as an assistant professor in insect physiology at Clemson University. In 1985, having earlier reached full professor, Ray moved officially into the field of medical and veterinary entomology. He was instrumental in establishing the Institute of Wildlife and Environmental Toxicology at Clemson University in 1989, and served in a key administrative role, helping to expand the graduate program to nearly 100 students by the mid-1990s. In 1997, he moved to the University of Georgia to serve as the head of the Department of Entomology, a position he held until his retirement in 2016. Over a professional career that spanned 46 years, Ray served as the supervisor for more than 65 theses and dissertations, many of them dealing with black flies.

Ray worked on black flies for his entire professional career. His first research on the Simuliidae, beginning in the early 1970s, was initiated to address the enormous economic losses being experienced by the turkey (*Meleagris gallopavo domesticus*) industry as a result of leucocytozoonosis. At that time, turkeys were farmed in large outdoor pens that left the birds vulnerable to large-scale attacks by black flies, especially *Simulium slossane*, carrying *Leucocytozoon* parasites. Ray's first paper on black flies (1972), published with colleagues in Clemson University's Department of Entomology, documented another ornithophilic black fly, *Simulium congareenarum*, as a vector of *Leucocytozoon*. Ray continued to be involved in research on leucocytozoonosis for 20 years, resulting in 20 papers on the parasite and its vectors. Ray often worked on leucocytozoonosis with his beloved wife of 51 years, Gayle Pittman Noblet, a parasitologist at Clemson University.

Years before the arrival of *Bti* as a management tool, Ray field-tested larvicides, such as the organophosphates Abate® as a means of suppressing the vectors of *Leucocytozoon*. Within three years after the first field tests of *Bti* against black flies in 1979, Ray

and his students ran their first field trials, applying the early products (Teknar® and Vectobac®) to streams in South Carolina, USA. By 1986, Ray and his laboratory group had begun testing different formulations of *Bti* in collaboration with Abbott Laboratories (now Valent BioSciences), eventually becoming the premiere testing center for formulations of *Bti* that were developed by Abbott Laboratories. In 1991, Ray was involved in developing what would become the gold standard for laboratory testing of *Bti*, centered at Clemson University and later at the University of Georgia—an orbital shaker system that produced water currents simulating stream flow in Erlenmeyer flasks. The use of the orbital shaker system, in concert with ongoing field trials, led to the worldwide use of VectoBac® 12AS, an aqueous formulation of *Bti*, as the primary agent for pest and vector control of black flies.

Critical to the success of the *Bti* testing program was a continual, reliable source of many larvae of the same general age and species. This aspect of the program involved Ray's efforts to establish a laboratory colony of *Simulium vittatum* at Clemson University, finally realized on 29 March 1991. It was derived from the original colony that was started from field-collected material in 1981 at Cornell University. In 1999, the colony was moved, concomitantly with Ray, to the University of Georgia, where it has continued through an uninterrupted series of hundreds of generations. The colony is now in its 43rd year, 25 of these years under Ray's supervision. The colony has provided not only material for *Bti* product testing but also material for teaching and for dozens of research projects, often for student theses and dissertations, including studies of larval feeding behavior, repellents against adult flies, genetic analyses, and pathogens and parasites such as *Onchocerca volvulus* and vesicular stomatitis virus. Today, the Black Fly Research and Resource Center at the University of Georgia, supported by the National Institutes of Health, maintains the only ongoing laboratory colony of black flies in the world, a testament to Ray's foresight and energy.

Above all, Raymond Noblet was a kind and generous individual who worked tirelessly to help others, profoundly influencing and promoting the careers of many students and colleagues.

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(chronological; alphabetical within year)**

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Notes for Contributors

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The Simuliid Bulletin is an informal publication intended to disseminate information about the Simuliidae (Diptera). It is published twice each year on the internet as a downloadable file at URL <http://www.simuliid-bulletin.blogspot.com> (note the hyphen) or <http://www.blackfly.org.uk>.

Content covers scientific papers, short research notes, notices and accounts of meetings, and articles of anecdotal or general interest that would not normally be found in international journals. Geographical cover is world-wide. Reports of research carried out by graduates, young scientists and newcomers to the subject are particularly encouraged. It is an ideal medium for offering new ideas and stimulating discussion because of the very short interval between acceptance and publication. Contributions may be accepted up to two weeks before the publication dates at the end of January or July.

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