Some of the estimated 400,000 endangered Indiana bats may be hanging out in the trees of the Oak Ridge Reservation. Scientists are combing the reservation for these bats, while University of Tennessee researchers study the spread of a fungal disease called White-Nose Syndrome in the area.

“Bats are important to the ecosystem and help to control many agricultural pests, like beetles, moths and other bugs,” ORNL project lead Kitty McCracken said. “We are conducting a general survey to see what bat species live on the reservation, and we are especially interested in finding the rare Indiana bat.”

Indiana bats have been on the endangered species list since 1967 because of human disturbances, including the commercialization of their hibernation caves, summer habitat loss, pesticides and diseases, like the White-Nose fungus.

Government organizations such as ORNL and the Tennessee Wildlife Resources Agency are searching for bats using acoustic detectors—machines that record the ultrasonic bat calls undetectable to humans. Computer programs then analyze the recordings and identify the types of bats present.

Researchers confirm the bats’ identities by catching them with mist nets, which are made of thread-like ropes that trap small winged creatures without harming them.

“If a bat is concentrating on catching an insect, it will fly right into the net,” McCracken said. “Because their bones are very delicate – like hollow bird bones – we have to be very careful when we are untangling and handling them.”

To positively identify the bats, ORNL scientists inspect many physical characteristics, such as fur colors, forearm length and ear and foot sizes. Researchers also note the tail membranes and where the wings attach.

Riley Bernard, a UT doctoral student, works on the late night expeditions to swab the bats’ noses for the White-Nose fungus and to check for wing damage.

White-Nose Syndrome—a fungal disease that was transported from Europe—has killed many millions of bats across the eastern United States. During hibernation, the fungus grows in the cave’s damp atmosphere and on a bat’s moist nose and causes damage on their wings. The fungus irritates the bats and repeatedly disrupts their hibernation, requiring them to use precious energy stores that can’t be replenished in the winter months.

The Oak Ridge Reservation is home to other now endangered bat species and a variety of other unique plants and animals. ORNL’s Natural Resources Management Team will continue surveying bats to determine what species are on the reservation, what they are eating and where they live during the summer and winter.

“DOE has worked hard to support the protection of endangered species and various ecosystems on the reservation,” McCracken said. “The bat study demonstrates their commitment to better understanding what is here so that it can be protected.”

The project is supported by the Natural Resources Management Program, which receives site-wide funds from DOE.

—Jennifer Brouner
John Kelsey is a man on the go each morning around Clinton.

No later than 7 a.m., John, 77, departs his home on the western side of Clinton and begins a six-mile walk that takes him through downtown – past the Anderson County Courthouse – and eventually to the Clinton Community Center. There, he does a workout before continuing his walk.

When John finally arrives home by mid-morning, he does duties around the house or helps a neighbor that keeps him going the rest of the day.

“Staying active the way I do is the way I keep my independence,” said John, who retired 15 years ago after working on environmental cleanup sites at ORNL and other DOE facilities in Oak Ridge. “I may be retired, but I’m not done being active and helping others.”

Originally from Quincy, Mass., John’s work brought him to Oak Ridge 21 years ago, purchasing a home in Clinton. Prior to arriving in East Tennessee, John had lived in a number of locations where his work was situated – primarily Nevada and Richmond, Va. When he started work in Oak Ridge, he knew the living situation was different.

“It was not too long after I got here that I knew this is where I wanted to settle down and retire,” said John, a widower who has a son living in Houston and a daughter in Las Vegas. “There was something about here that made me feel as though I was truly home. That feeling has never left me.”

John used to run his way around Clinton. He doesn’t like to dwell on age, but admits a point came when running was no longer physically practical.

“I used to run and play softball in Oak Ridge, but the muscles and the old joints started to catch up with me,” said John, a graduate of the State University of New York at Albany. “It was at that point where I started the daily walking routine.”

In addition to the walks around Clinton, John is also active in the Clinton Lions Club and a local organization that urges adults not to provide alcohol to minors in the home. He also serves on the Parish Council at St. Therese Roman Catholic Church in Clinton.

“I’ve been in Lions for 47 years wherever I lived,” John said. “When I got here, they found out I could cook, so they made me their chief cook. You can find me cooking hamburgers at the Anderson County Fair each summer and the two antique festivals Clinton hosts each spring and fall.”

John also looks out for his neighbors.

“I am fortunate in that I can still get around at my age to do things that a lot of people can’t do any more,” John said. “I’m always glad to help by getting a neighbor’s mail or newspaper.”

When John does take some time to sit around the house – which is not that long – he is usually working crossword puzzles or cryptograms.

“Not only do I try to keep physically active, but I want to keep my mind.” – Fred Strohl

Stewart inducted into ET Writers’ Hall of Fame

Art Stewart was inducted into the East Tennessee Writers’ Hall of Fame in October as the recipient of the organization’s 2013 Poetry Award.

Stewart – who worked in ORNL’s Environmental Sciences Division for 17 years and is currently a science education manager at ORAU – has written science flavored poetry that relates science to non-scientists.

His poems have been published in more than a dozen national and regional poetry anthologies, literary and science magazines, including the Journal of the American Medical Association, Bulletin of the Ecological Society of America and Chemical and Engineering News.

Art has won a number of poetry competitions sponsored by the Knoxville Writers Guild. He earned the 1997 Tennessee Poetry Prize and the 2009 Wylma Dykeman Prize for essay writing. He has authored four books of poems since 2003.
When Eric Mueller was selected as the first UT-Battelle Scholar in 2001, the Farragut High School senior was hoping to pursue a career that involved physics and computational science.

Twelve years later, Eric has accomplished much of that, plus more as a software developer and computer engineer at Emcien, located outside Atlanta.

“Emcien does a lot of work with big data in such diverse areas as financial services, manufacturing, retail, telecommunications, government and security,” Eric said during a recent phone interview from his home in Marietta. “My activities have been centered on algorithms and computer programs that all involve working with a large amount of data.”

Eric started at Emcien three and a half years ago after having worked in similar computational science positions at Secure Computing Corp. and Multi-State — both located in Atlanta. Secure Computing produces computer security devices while Multi-State was involved in programs that tracked government legislation and other areas where large collections of data were involved.

While a student at UT in the early to mid 2000s, Eric served an ORNL internship in computational sciences that whetted his appetite for his future career.

“I worked at EVEREST in its early days and the experience helped build my interest for computational science beyond what I thought was possible,” Eric said. “That big power wall opened my eyes to all types of activities I got involved with and helped me to set a path for all the new computational science activities that have taken place since then.”

Eric made maximum use of his UT-Battelle Scholarship. He earned Bachelor of Science degrees in computer engineering and physics. As a graduate student at UT, he earned a master’s in computer science.

The son of Don and Joy Mueller — Don works in ORNL’s Reactor and Nuclear Systems Division — who make their home in Knoxville’s Cedar Bluff area, Eric is settled in Georgia with his wife Audrey and their 1-year-daughter Echo Albright. Eric says the Atlanta area is a perfect fit for his family and career.

“Atlanta is the center of a lot of the type of work that I do, which is why I have stayed here since I left UT,” Eric said. “I’m fortunate that my work is close enough to where I grew up and to quickly drive home to see my family when I need to.”

Eric credits his UT-Battelle Scholarship for launching his career.

“That big power wall at EVEREST opened my eyes to all types of activities,” Eric said. “When I started in Atlanta, my background at UT and my internship at ORNL helped me to set a path for all the new computational science activities that have taken place since then. For me, this all got started at UT and ORNL.” —Fred Stroud

Ramamoorthy Ramesh, ORNL’s new deputy director for science & technology, wants science to be conducted where “this kitchen will get hot, but it will be a lot of fun.”

As the keynote speaker at ORNL’s first Postdoc Research Symposium July 18, Ramesh said he wants research to be focused on “excellence in whatever we do” and particularly challenged the postdocs to step up as the next generation of science.

“Who is going to be the next Clifford Shull?” Ramesh asked his audience in referring to the ORNL researcher of the late ‘40s and early ‘50s who developed the neutron scattering technology leading to earning the Nobel Prize for physics in 1994. “You postdocs should be dreaming about that.”

Ramesh, who was delivering his first public presentation since assuming his new position, noted the appeal of ORNL is the fact it offers great opportunities in all types of sciences and enables researchers from different fields to collaborate.

“We do basic science, applied science and commercialization,” Ramesh said. “You get the opportunity to take your work to new heights and have fun. There is excellent collaboration and I encourage you to take advantage of working with many different people here. The thinking process is very important.”

Ramesh (Photo by Jason Richards)
September 2013

40 years: Sigurd W. Christensen, Environmental Sciences

35 years: Janie Myers, Materials Science & Technology; John F. Thomas, Energy & Transportation Science; Graydon L. Yoder Jr, Reactor & Nuclear Systems

30 years: L. Curt Maxey and Michael R. Hilliard, Energy & Transportation Science; Richard C. Ward, Computational Sciences & Engineering; Surinder Paul Singh, Nuclear Security & Isotope Technology; Peter John Hildebrandt, Integrated Operations Support

25 years: Kimberly Ann Milburn, Financial Management Services; Mark W. Dickey, Information Technology Services; Kevin M. Cooley, Materials Science & Technology; Stanley D. Moses, Nuclear Security & Isotope Technology; Brian Joseph Roschli, Research Reactors; J. K. Elkins, Laboratory Protection; Ed Turnington and Roger C. O’Dell, Nuclear & Radiological Protection; Frank Riley, Reactor & Nuclear Systems; Laura D. Chapman, Logistical Services; Benjamin F. McMurry, Environmental Sciences

20 years: Wendell Garret Ely and Lisa Ann Lester, Facilities Management; A. L. Qualls, Reactor & Nuclear Systems; Gayle Jones, Energy & Transportation Science; Hurtis Undra Hodges, Facilities Development

October 2013

40 years: Andy Loebl, Computational Sciences & Engineering


25 years: Gregory B. Hurst, Chemical Sciences; Scott M. Gregory, Environmental Protection & Waste Services; Craig C. Brandt, Biosciences; Randy H. Wiles, Energy & Transportation Science; Juan J. Ferrada, US ITER Nuclear Systems; Donna Holt Ault, Financial Management Services; Yetta Jager, Environmental Sciences; Richard Albert Turney, Research Reactors; Susan Elaine Hicks, Information Technology Services; Lynn A. Kszos, Office of the Laboratory Director; Missy W. Ogan, Facilities & Operations Dir.

20 years: Michael C. Wright, Nuclear Security & Isotope Technology; Melissa Voss Lapsa, Energy & Transportation Science; Randy Belles, Reactor & Nuclear Systems; Carl Bryan Summers, Logistical Services

November 2013

35 years: Mike W. Guidry, Physics; Betty Kay Mansfield and Susan K. Holladay, Biosciences; Jerry Randall Coomar, Facilities Management; Nina Jean Roberts, Logistical Services


25 years: Roxanne F. Correa and Brian H. West, Energy & Transportation Science; Timothy W. Beatty, Environmental Protection & Waste Services; Robert L. Henry, Office of Integrated Performance Management; Joan Tjapkes Muecke, Research Reactors; Timothy D. Burchell, Materials Science and Technology

20 years: Robert A. Schoenfeld, Information Technology Services; Baohua Gu, Environmental Sciences; R. Alex Patton, Nuclear & Radiological Protection; Forrest M. Hoffman, Computer Science and Mathematics; Rochelle L. Coats, Computational Sciences & Engineering; Barbara J. F. Swails, Laboratory Protection; Larry W. McCollum, Fabrication, Hoisting & Rigging; Jacqueline L. Shipwash, Measurement Science & Systems Engineering; Luiz C. Leal, Reactor & Nuclear Systems; David L. Denton, Nuclear Security & Isotope Technology; Natasha I. Blair, Nonreactor Nuclear Facilities Division

Join the Friends of ORNL

Friends of ORNL (FORNL) is a non-profit organization that provides members with a way to keep in touch with co-workers, retirees and current ORNL activities. Meetings are held at 11 a.m. the third Wednesday of each month except November and December. Membership is open to current and former ORNL employees, as well as any person or organization with an interest in ORNL and its programs. Dues are $20 per year and $200 for a life membership. Contact Chuck Coutant at ccoutant3@comcast.net for information.
For retirees age 65 and older: Open enrollment for Medicare begins Oct. 15 and continues through Dec. 7, 2013

You have the opportunity to change plans each year during the Medicare Annual Enrollment period. You may receive many phone calls and mailings from providers marketing their plans to you. Remember, if you wish to change plans, you must call Extend Health, not the plan provider, to make changes. Otherwise you will lose your ORNL Rx plan and your Health Reimbursement Account. Watch your mail for additional information about your ORNL-provided benefits, coming later this fall.

Honors and awards

North Carolina State honors Pugh
Claud Pugh has been inducted into North Carolina State University’s Department of Mechanical and Aerospace Engineering Hall of Fame.

In addition to receiving his bachelor’s and master’s degrees, as well as his doctorate from the university, he also later served on the faculty there.

Pugh, who worked at ORNL from 1989 through 2001, served as director of ORNL’s Nuclear Regulatory Commission Program Office. Prior to that, he was head of the Engineering Technology Division’s Pressure Vessel Technology Section, directed the NRC-sponsored Heavy-Section Steel Technology Program and held various research and project management positions in programs sponsored by the NRC and the Department of Energy.

Jeskie leads society’s safety committee report
The American Chemical Society issued a report, “Identifying and Evaluating Hazards in Research Laboratories” at its 246th National Meeting & Exposition held in September, Facilities & Operations’ Kim Jeskie led the 12-member committee that developed the ACS guidelines.

Kim was also appointed last spring to serve on the National Research Council Committee on Establishing and Promoting a Culture of Safety in Academic Laboratory Research. That panel is examining chemical research laboratory safety in nonindustrial settings.

Kim directs the Integrated Operations Support Division at ORNL and is the 2013 Past Chair of the ACS Division of Chemical Health and Safety.

Stuart Daw elected fellow of AIChE
The Energy & Transportation Science Division’s Stuart Daw has been elected fellow of the American Institute of Chemical Engineers. AIChE recognized Stuart for “numerous technical contributions in the fields of coal conversion, fluidization, reaction engineering, combustion and engineering applications of nonlinear dynamics.”

Stuart, who is a UT-Battelle Corporate Fellow and an adjunct faculty member at the University of Tennessee, holds 15 patents and has more than 200 published papers. He is a director of the local AIChE chapter.

Oak Ridge Council lauds Liane Russell
Retired ORNL mammalian genetics researcher Liane Russell has been recognized by the Oak Ridge City Council. The council by proclamation paid tribute to Liane for her contributions to both the Oak Ridge and the scientific research communities in celebration of her 90th birthday.

Liane’s mammalian genetics work with her husband, Bill Russell, expanded the field of mammalian genetics and resulted in numerous significant discoveries. Both received the Enrico Fermi Award and both were elected to the National Academy of Science. The Russells were also devoted environmentalists who helped organize the Tennessee Citizens for Wilderness Planning and led the drafting and passage of Tennessee’s State Scenic Rivers Act.

Liane has written a history of ORNL’s Mouse House, the Lab’s former mammalian genetics mouse colony for genetic research. It has been accepted and will appear in an upcoming issue of the journal Mutation Research.
Sixty years ago this month

Taken from ORNL "The News" for Fall of 1953

- The new high-speed computing machine known as the ORACLE was built at Argonne National Laboratory under the direction of the ORNL Mathematics Panel. ORACLE was successfully demonstrated at the Chicago Symposium on Digital Computers.

- Dr. Vander Sluis of the ORNL Stable Isotope Research and Production Division determined the nuclear spin of the uranium-233 isotope. His work indicated that the nucleus has a magnetic moment opposite in direction to that of the fissionable uranium-235 nucleus.

- Dr. George Boyd, associate director of ORNL Chemistry Division, returned after a year in Europe, as a research scholar under the Fulbright Act and as a recipient of a Guggenheim Memorial Foundation Award.

- Dr. Paul Aeberson, chief of the Isotopes Division of the Oak Ridge Office of the AEC announced a new and simple test to measure the physiological age and health of the arteries. This test utilizes radioactive tracers injected into the bloodstream and is expected to provide a warning signal of possible arteriosclerosis, heart attacks, and strokes.

- Dr. William L. Russell of the Biology Division was a recent ORNL Colloquium speaker, discussing the topic of "Genetic Hazards of Radiation." —preparing by ORNL History Room volunteers
Secretary Ernest Moniz, who made ORNL the first national lab he visited as Energy Secretary, recently unveiled a reorganization plan for the Energy Department that includes changes I believe will be positive for the Lab and its missions. Under his plan, DOE’s programs in basic science and energy technology will be managed by a single under secretary. The new plan is very well aligned with ORNL’s missions and capabilities, especially our focus on translational R&D.

Congratulations to our new UT-Battelle Corporate Fellows: Witek Nazarewicz, ORNL Physics Division and James McConnell Distinguished Professor of Physics at the University of Tennessee; Stan Wullschleger, ORNL Environmental Sciences Division and national project director for DOE’s Next Generation Ecosystem Experiments – Arctic; and Bobby Sumpter, director of the Nanomaterials Theory Institute at ORNL’s Center for Nanophase Materials Sciences and leader of the Computational Chemical and Materials Sciences Group in the Computer Science and Mathematics Division. Witek, Stan and Bobby are representative of ORNL’s excellence across a broad span of research.

ORNL and the University of Tennessee are expanding the list of Governor’s Chair educators, this time with talent well known around the Lab. Steve Zinkle, UT-Battelle Corporate Fellow and chief scientist for ORNL’s Nuclear Science and Engineering Directorate, became the Governor’s Chair for Nuclear Materials on Oct. 1. Steve is the 12th UT-ORNL Governor’s Chair. He is now based in the department of nuclear engineering at the UT with a complementary appointment in materials science and engineering.

Former ORNL researcher Suresh Babu was recently named the 11th UT-ORNL Governor’s Chair. Suresh began July 1 as Governor’s Chair for Advanced Manufacturing after coming over from The Ohio State University. At ORNL he will work in the Energy and Environmental Sciences Directorate and in the Energy Materials Program. Steve and Suresh join Suresh join Deputy for Science and Technology Ramamoorthy Ramesh as newly appointed Governor’s Chairs.

Our staff opened it hearts and displayed true East Tennessee volunteer spirit this year as UT-Battelle raised $901,048 for the United Way campaign. Our Leadership Givers program – where employees pay a certain percentage of their base salary per pay period – increased by 36 to where we now have 451 Leadership Givers.

This summer’s Team UT-Battelle project with Aid to Distressed Families of Appalachian Counties is complete with a family now living in its new Oak Ridge home. Thanks to all the volunteers who donated either time or funds to this worthy community project. In fact, you can still donate funds to the ADFAC project. An ADFAC Home Build account has been established under the ORNL Federal Credit Union Team UT-Battelle account.

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U.S. Rep. Chuck Fleischmann recognized the six ORNL innovations that recently earned R&D 100 Awards during an August ceremony at ORNL’s Weinberg Auditorium.

Fleischmann said such an accomplishment is a signal the United States is moving toward regaining world technology and innovation leadership.

“We take science and then we take the benefits of science and market that,” Fleischmann said during his remarks to about 100 in attendance at the event. “An example is you have a water heater that is more energy efficient and now able to be manufactured in the United States. This is part of a process where you have science, education and capital to make sure the United States begins to manufacture here again. We are gaining a more competitive advantage over the rest of the world because of what we are doing here at ORNL.”

Club ORNL events

Get the details and latest news online via https://info.ornl.gov/sites/clubornl. Request an XCAMS account, which will allow you to participate in these events or contact Lara James at 865-576-3753 or jamesla@ornl.gov.