

# OBITUARIES



**SANDRA MUTH GIFFORD**

**HERMON AND HAMPDEN**  
- Sandra Muth Gifford, 49, loving and devoted wife of Kevin Gifford of Hermon, died on November 29, 2015 as the result of a motor vehicle accident.

Sandra was born on June 1, 1966 in Glens Falls, New York. She graduated from Hampden Academy and the University of Maine. She earned her degree in Health Information Technology and worked in that field for many years.

Sandra's faith was very important to her. She has been active in her church for all of her adult life, most recently the Church of the Open Door in Hampden.

She was predeceased by her parents, Don and Alice (Ferguson) Muth of Hampden, a sister Lynette, and a sister-in-law Debra (Wood) Muth of Holden. Surviving in addition to her husband are her sons Kevin Charles, Jr. and Isaac. She is also survived by siblings Donald Muth, Jr. and Donna Bulger of Winterport, Jim Muth and Debbie Plourde of Holden, Bill Muth of Corinth, Jay Muth and Carolyn Dorrity of Winterport, Dr. Allison (Muth) Berube and Georges Berube of Hampden, and Andrea (Muth) Esty and her husband Jayson Esty of Murphy, California and nieces and nephews Josh, Jeremy, Megan, Gabby, Erin, Lilly, Craig and Jamie as well as several great nieces and nephews and many close friends whose friendships she cherished.

Sandra was an educator for NAMI (National Alliance on Mental Illness) and was a strong supporter of its mission. The family suggests donations may be made in Sandra's memory to NAMI Maine, 1 Bangor St., Augusta, Maine 04330.

Relatives and friends are invited to call 4 -7 pm Friday, December 4, 2015 at the Hampden-Gilpatrick Chapel of Brookings Smith, 45 Western Avenue, Hampden. Funeral services will be held 11am Saturday, December 5, 2015 at the Community Church of the Open Door, 270 Main Road North, Hampden. Interment will follow in Lakeview Cemetery, Route 9, Hampden. Family and friends are invited to a reception at the church at 1pm.

Condolences to the family may be expressed at [www.BrookingsSmith.com](http://www.BrookingsSmith.com)

**MARK R. KINNEY**

**PRESQUE ISLE AND HOULTON** - Mark R. Kinney, 56, of Presque Isle and Houlton died Nov. 29, 2015 in Bangor. He was born March 21, 1959 in Milford, Ct. the son of Malcolm and Patricia (Spellman) Kinney.

Mark enjoyed fishing, cleaning his cars and spending time with his family and friends.

He is survived by a daughter Samantha Kinney and three siblings Keith Kinney of Houlton, Jean and Pete Ambrose of Bangor and Lynn and Byron Sanderson of Lincoln. Three nieces Jammie Kinney of Houlton, Quinci and Anthony Stewart of Milford and Spencer and Rogan McKay of Enfield and a close cousin Rick Spellman.

Friends may call 6-7pm Friday: Dec. 4 at Bowers Funeral Home 10 Water St. Houlton. Interment will be in the Evergreen Cemetery Houlton. For an online guestbook and to leave condolences please visit [www.bowersfuneral.com](http://www.bowersfuneral.com)



**RUTH L. MULFORD**

**PRESQUE ISLE** - Ruth L. Mulford passed away on November 16, 2015 after a long illness. She was born Liselotte (Lilo) Okker on February 16, 1927 in Ulm, Germany, the third child of Franz and Anna Okker and her stepfather Adolf Stroh.

She met and married her late husband, USAF Captain William Weston Mulford, in 1955 in Germany when he was the Unit Administration Officer where Lilo worked at the 7055 Air Intelligence Squadron. Soon afterward they returned to the United States where Bill was stationed at Loring AFB and, living in Limestone and eventually Presque Isle, they raised their family.

Although Ruth stayed home to care for the children, she later returned to work and over the years was employed as an executive assistant with the Triple A Sugar Beet Corporation, an Executive Director of the Presque Isle Red Cross, and as a legal secretary with Stewart Law Offices, where her administrative and organizational skills were highly valued.

She was an avid reader, loved classical music, enjoyed knitting, and in the summer would frequently go out for freshly picked fiddleheads, dandelion greens, and raspberries. Her favorite movie was The Sound of Music.

She is survived by her 3 children - Alfred of Colorado, Trudy of Massachusetts, and Cathy and her husband Danny Cyr of Presque Isle as well as her 2 grandsons Kyle and Lucas, who knew her as Oma.

Mom, may you see again the river Rhine, the mountains of Switzerland, and ride through the Black Forest with Margot on your 1 speed bike. Auf Wiedersehen.

Per her wishes no services are planned. In lieu of flowers, donations may be made in her name to the American Heart Association ([see www.charitynavigator.org](http://see.www.charitynavigator.org)). Online condolences may be shared at [www.duncan-graves.com](http://www.duncan-graves.com)

**SARAH C. MICHAUD**

**ISLAND FALLS** - Sarah C. Michaud, 76, died November 29, 2015 in Houlton. She was born August 10, 1939 in New Limerick, the daughter of Chester & Mildred (Feeney) Donahue.

She graduated from Katahdin High School in 1975 and retired from National Starch after 30+ years. Sarah enjoyed reading, watching TV and her two cats.

She is survived by 4 children: Wealthy & Jeff Brooks of Island Falls, Cathy Bailey and her friend, Larry Bailey, of Calais, Randell & Julie Michaud of Norwalk, OH, and Jon Michaud & Liz Brightman of New Bedford, MA; 10 grandchildren; 10 great grandchildren; her sister, Ardith Jones of Boothbay Harbor; her brother, John Donahue of Island Falls as well as several nieces, nephews and cousins. She is predeceased by 2 children: Lisa Margaret and John Kevin.

A Celebration of Life will be held at 12:00 pm, Friday, Dec. 4th at the Big Valley Snowmobile Club in Island Falls. For online condolences please visit [www.bowersfuneral.com](http://www.bowersfuneral.com)

## Baked bean supper at Waterville church

**WATERVILLE** — A baked bean supper will be held 5-6 p.m. Saturday, Dec. 12, at the Pleasant Street United Methodist Church, 61 Pleasant St.

The menu also will include hot dogs, casseroles, salads, rolls, pies and beverages. Cost is \$8, \$5 for children under 12.

There will be no suppers at the church in January and February. For information, call 692-7123 or email [dac@hotmail.com](mailto:dac@hotmail.com).

## Chicken pie supper at Garland Grange

**GARLAND** — A chicken pie public all-you-can-eat supper will be held 5-7 p.m. Friday, Dec. 11, at Garland Grange Hall, Oliver Hill Road.

The menu includes chicken pie, locally grown vegetables, homemade bread and desserts.

Prices are \$7 for adults, \$3 for children 5-12, free for children under 5. Proceeds will benefit Garland Grange.

# Birds, bees, bugs and trees

## UMPI professors, students probe variety of changes, problems

**BY ANTHONY BRINO**  
BDN STAFF

**PRESQUE ISLE** — From antibiotic resistance to Deboullie lichens, University of Maine Presque Isle professors are exploring a world of research while guiding a new generation of scientists.

In some parts of the north woods of Aroostook County, the rock structures in the modest mountains have not been surveyed since the 1970s. Now, partly because of recent archaeological finds in the region, a team led by UMPI geologist Chunzeng Wang is mapping the rocks in two areas with funding from the government's geological survey.

"It's our backyard: beautiful rocks with minerals," Wang said during a recent lunchtime seminar open to the community. He's one of several science professors at UMPI pursuing a range of research with students, often with a local focus with broader implications for understanding phenomena like antibiotic-resistant bacteria and climate change.

"Problem-solving is a big part of research," biologist Larry Feinstein said. For UMPI science students, it's a chance to participate in that problem solving — and get paid for doing work. "It's a really interesting blend of analytical and technical but creative endeavors. You get to exercise both parts of your brain."

In one such project, Feinstein and a team are investigating the "resistome," the genetics of antibiotic-resistant bacteria, like the ones responsible for sometimes deadly infections.

The team has collected DNA samples of antibiotic-resistant microbes in humans from regional hospitals — where many of the antibiotic-resistant infections are first contracted — and from nearby agricultural and forest soils. They're tracking "how genes transfer from the environment to pathogens" and whether antibiotic-resistant genes are migrating from microbes in the soil to humans, Feinstein said.

Depending on the extent of the soil's influence or the local levels of interaction, the research may yield new ideas for preventing the spread of antibiotic resistance, which leads to the deaths of an estimated 23,000 Americans each year from such pathogens as Clostridium difficile and methicillin-resistant Staphylococcus aureus.

Feinstein also is collaborating with UMPI biologist Scott Dobrin on other areas of bacteria and health.

"There are thousands and thousands of different species that are working with us in our body," Dobrin said, referring to the human microbiome, our collection of microbes and their genes. For instance, he said, "we're now under-



CONTRIBUTED BY DAVID PUTNAM

A field crew including UMPI student Caleb Ward (second from left) prepares to collect a sample from a glacial erratic boulder in the Altai Tavan Bogd National Park in western Mongolia.

standing that the appendix is not a vestigial organ. When you get really sick and you flush your system out or you take antibiotics, the sack there is a place where you can have new bacteria recolonize your gut."

To try to understand that complicated system in humans, Feinstein and Dobrin are focusing on the microbiome of honeybees, a simpler creature to study and also one struggling with colony collapse disorder, which is threatening some farmers who need the bees to pollinate crops.

With a smaller number of bacteria species in common and the ability to be dissected and analyzed under a microscope, honeybees and bumblebees can be used as a model organism to "pinpoint what's going on," Dobrin said. In the current project, they're studying honeybees and bumblebees to find out whether environmental stressors, like pesticides, are contributing to colony collapse by interfering with bacteria.

"Bacteria is really important in honey," Dobrin said. "If you disrupt those bacteria in their intestines, they're not getting the nutrients out of the pollen that they really need." And if they're not getting enough nutrients, they may not be able to survive the winter.

Other UMPI professors are working with students on projects guaranteed to take them outside and potentially help improve understanding of the phenomena of climate change.

Last summer, UMPI archaeologist David Putnam traveled with students and a multiuniversity team to the Mongolian desert, where they took samples of mountain geology, tree rings and rock carvings — and did a little fly fishing.

"You have to be the right person to go to Mongolia. You have to not mind long hours in a truck pounding over dirt roads and living in tents," Putnam said.

Among revelations from the ongoing project, the team has found that Mongolia's grasslands are experiencing a drought "that is unprecedented" over the past 800 years, leading to an expanding desert over the same Asian grasslands that allowed Genghis Khan to expand the Mongol empire in the 1200s and with it world trade.

In northern Maine, where climate change may actually end up being beneficial by extending the growing season, UMPI researchers and students are focusing on a range of natural processes.

Biologist Judy Roe and researchers from Fort Kent have been tracking the ecology of Deboullie Public Reserved Land, an area of highland lakes, mountains, alpine plants, rock glaciers and ice caves. With some of its funding from the Maine lottery, the research has focused on the unique mosses, lichens and dwarf trees and ways they can be preserved amid a changing climate. "These are isolated communities," Roe said.

Wang, UMPI's geographic information systems specialist, Feinstein and others are working on a project with the Aroostook Band of Micmacs to study the carbon cycle in the tribe's forestlands on the former Loring Air Force base. Depending on the results, the Micmacs could harvest some of the trees and sell them, or they could manage the forest as a carbon sink, to sell carbon credits to companies offsetting their carbon dioxide pollution.

Elsewhere in Aroostook County's forests, UMPI biologist Jason Johnston and students are learning about the movements of birds, trees and insects.

"We are this place where there is a mix," Johnston said. Northern Maine is in a forest transition zone where oaks are in their northern reaches, while spruce and maple are at the south of their range and receding north because of a

changing climate.

"Birds are also moving," Johnston said.

Among others, the boreal chickadee may be leaving and heading north. With a range that extends only as far south as central Maine, they are rare sights in Aroostook County, preferring black spruce forests that are estimated to be migrating north as the climate warms. The northern cardinal, meanwhile, has been gradually expanding into upper New England since at least the 1960s, when its range went only as far north as Connecticut.

Today, the northern cardinal is comfortable in northern Maine, among other birds like the wood thrush that are advancing north amid warmer springs and falls.

"It's not totally well-known why they made that expansion," Johnston said.

With a National Science Foundation grant, Johnston and a team are trying to figure out whether the birds' trends are driven by their food sources shifting north or because of timing — warmer springs and falls that are shifting seasonal beginnings and endings, and the availability of insects. "The birds may be getting there either too early or too late for when they've evolved to show up here."

"I've had students who've worked with me in the past," Johnston said, mentioning a past student who now works in bone science at Yale University. "Nothing related to this, but I think the experience helped her get there," he said. "Currently, we just got started on DNA barcoding and starting in the spring, I'll need someone to help me catch birds, do GIS and do some of the field work."

Those kinds of projects can be a win-win for faculty and students, Johnson said. "It's what we're all trying to do: advance our research and provide opportunities."

# Police investigating death of Juneau mayor

REUTERS

Police were investigating the death of Juneau's new mayor, Greg Fisk, while city officials said they were seeking legal advice on the succession.

Police found Fisk, 70, inside his home in the state capital Monday afternoon after the mayor's son made an emergency call, Juneau's police department said in a statement. Fisk was pronounced dead at the scene.

A police spokeswoman said an investigation into the "unattended death" was underway, and that she had no further information on the cause or circumstances of Fisk's death.

Police said rumors that Fisk had been assaulted were mere "speculation." Juneau Police Chief Bryce Johnson told local broadcaster KTOO that there was no evidence of forced entry at the home, nor any suspicion of suicide.

The medical examiner's office will perform an autopsy.

Deputy Mayor Mary Becker said Fisk, who was elected in October and had been due to serve until 2018, was an avid fisherman who championed economic development and other causes.

Becker said she is assuming the role of acting mayor while the city attorney advises on succession protocols.

City and Borough of Juneau clerk Laurie Sica said Tuesday that a statement would be released once officials determine the next steps for the city's leadership.

Alaska Gov. Bill Walker said Monday had been a sad day, and that his thoughts and prayers were with Fisk's family.

"He will be remembered for his dedicated service to the community of Juneau," Walker said in a statement.

# Plymouth man struck, killed by vehicle on Route 9

**BY RYAN MCLAUGHLIN**  
BDN STAFF

**AURORA** — A Plymouth man was killed Thursday night when he was struck by a vehicle on Route 9, state police said.

Anthony Barnes, 34, who had been traveling east, had stopped in the driving lane and shut off his vehicle and

its lights, Maine State Police Lt. Roderick Charette said.

Barnes was apparently standing on the driver's side when an eastbound vehicle driven by Mitch Russell, 28, of Calais, clipped the left rear door of Barnes' vehicle and struck Barnes, Charette said.

The crash occurred

around 6 p.m., the lieutenant said.

Barnes wound up in the road and Russell's vehicle went off the right side of the road, Charette said. Barnes was transported via Life-Flight to Eastern Maine Medical Center, where he died shortly after arriving.

Russell and a passenger were uninjured, as were two

passengers in Barnes' vehicle.

Police are unclear why Barnes stopped his vehicle in the road and shut it off. Troopers Jacob Ferland, Bryan Creamer and Sgt. Tim Varney of the state police were assisted by Ellsworth police, Aurora firefighters and Capital Ambulance.