

M A R C H 2 0 1 6

# The University of Maine

Upward Bound Math Science



## *Welcome!*

The University of Maine Upward Bound Math Science is excited to welcome TWENTY-ONE (21) new students and their families to our program. The fall was a busy recruit season and given the fantastic level of interest and pool of students, we have an active wait list!

Without further ado, a hearty welcome goes out to:

Tia Shorey  
Kyle Watson  
James Fagon  
Ila Arthurs  
Lucien Tibbetts  
Natalie Beyenberg  
Cayden Spencer-Thompson  
Caitlyn Jordan  
Sydney Wilson  
Kollin Cobb  
Alex Viles  
Haley Hill  
Dominic Sclafani  
Samantha McKinnon  
Annie Choi  
Saige McGinnis  
Hasbo Omame  
Gloria Bila  
Hamdi Sheikh  
Roukia Houssein  
Katie Farber

## Senior College Acceptances

This list is not exhaustive, as more acceptances will be announced in the spring newsletter!

**Megan Haney:** UMaine, Husson

**Savannah Scudder:** USM

**Elizabeth Rumery:** UMaine, Simmon, Suffolk, Thomas, UMM, EMCC

**Jaclyn Rideout:** USM, Husson

**Monette Kierstead:** USM, UMaine

**Neesha Fatmi:** UMFK, Husson, Curry, UNH, UNE, Western NE

**Sierra Beem:** Mt. Ida, Husson, Vermont Tech, UMA

**Brooke Robbins:** Mt. Ida, Husson, Thomas, UMaine

**Sandy Pham:** USM, Wheelock

**Kifah Sulub:** USM, UMaine, UNH, UNE, SMCC, Clark

**Mo Omame:** USM, UMaine Thomas, Bay State, Fairfield, U Hartford, Merrimack, Tuskegee, Union

**Fardowsa Mohamed:** UMPI, Central State University

**Maryan Mukhtar:** Central State University, Clark College, SMCC, USM, UMF, Norfolk, Tennessee State

**Garrett Rudge:** Eastern Nazarene, USM, UMaine, UMM, Thomas, Husson, UMF

**Taia Federico:** UMPI, UMF, USM, UMaine

# Bridge Deadlines

## Senior Expectations

In order to remain in good standing, AND to remain eligible to apply for the Bridge summer following high school graduation, each UBMS senior must meet the following requirements and give documentation to their UBMS Counselor:

**MAR 17:** Complete at least **three scholarship applications** by March 17th

**APR 1:** Submit your **Bridge application** to UBMS by April 1<sup>st</sup>. If you haven't talked with Kelly yet about your individual projects, please do so ASAP!

**MAY 1:** Take some combination of at least **two college admissions tests** (2 SAT, 2 ACT, or 1 SAT+1 ACT) by May 1st of your senior year

**MAY 31:** Provide **financial aid award letters** and **college application status** (accept, wait, decline) letters to UBMS by May 31st

# Summer 2016!



JUNE 18	Bridge Students Arrive
JUNE 19	Upperclass Students Arrive
JUNE 24-26	Academic Weekend on Campus
JUNE 26-28	Sophomore Step-Up!
JULY 2-5	Holiday Break
JULY 8-10	Weekend Break excluding Bridge Trip and Leadership Council Conference
JULY 15-17	Academic Weekend on Campus
JULY 22-24	Weekend Break
JULY 24	Family Night and Talent Show
JULY 25	STEM Symposium
JULY 27	Program Closure

# Scholarship Newsflash!

Remember-- scholarships are a great opportunity to help offset the cost of college, and the best part is, you don't have to pay them back. If you are required to submit recommendation letters, be sure to give your recommenders ample time to prepare. A few scholarships with upcoming deadlines are listed below, but there are many, many more that are available. We have shared a Googledoc with current seniors with many scholarship and search engines listed. Guidance offices are also fantastic resources for local scholarships. It pays (literally) to take time to look.

## Mitchell Institute Scholarship:

- Due April 1, 2016
- Award amount: \$8,500
- To apply: <http://mitchellinstitute.org/scholarship/#slide-2>



## The Stephen Phillips Memorial Scholarship:

- HS Early Deadline for students with 2 financial aid packages whose college choice could be impacted by available funds): April 10, 2016 at 5 PM
- *High School students' regular deadline:* May 2, 2016 at 5 PM
- Award amount: \$3000-\$18,000 annually
- To apply: <http://phillips-scholarship.org/>

## TRIO ADVOCACY! TRIO WORKS!



UMaine UB/UBMS was well represented in March at both the state and national levels! **Nikita Gagain and Dr. Patricia Marshall**, UB Alumnae, represented Maine at the COE Policy Seminar in Washington, DC. Back in Maine, UBMS students attended the Hall of Flags at the Maine State Capital on March 9. Neesha Fatmi was a guest speaker at the event! In attendance: **Reilly Hesseltine, Mark Muir, Neesha Fatmi, Matthew Bragdon, Megan Haney, Garrett Rudge, Hamdi Sheik, Maryan Mukhtar, Usira Ali and Becky**

# Reunion & Orientation **Upward Bound** **2016** Math Science

Join us for our **Spring Reunion and Summer Residential/Academic Orientation on Friday, April 22nd**. It's the Friday of spring break at UMaine. It's your chance to *visit friends, tour campus, see the residence hall, and be part of an official UBMS UMaine radio show* on UMaine's college station, WMEB.

**We need your help to put on the show! Gain leadership and public speaking experience, sharing ideas of personal, academic, and social importance to you.** We have provided suggestions for how you can participate, but encourage you to come up with your own ideas too.

Here are some of our ideas: if you play an instrument or want to sing you could do a solo instrumental; if you like to draw, one of the UBMS Counselors could interview you about the meaning of this art to you, or the process you used to create it; you could also play a favorite song that's meaningful to you, and tell the audience why this song matters to you.



Another idea we had is for you to present your research project from last summer, or participate in a live academic discussion hosted by one of the UBMS counselors with student panelists on a scientific or social topic of importance to you. Maine welcomes refugees, climate change, LePage as governor, black lives matter, gun control, and college readiness are suggestions, but we are open to your ideas! You could also be part of the tech crew behind the scenes. This option is limited to three people at a time, but we can rotate people into the room, so more than three can participate throughout the afternoon. But, not everyone can do tech! We need and want your participation!

If it seems scary, maybe it's the **chance to grow and learn more about yourself, and take a chance to do something for the value of the experience and the inherent challenge of overcoming.** We will support you throughout the process and be cheering you on during the show. We'll prepare ahead of time during school visits, and also the day of the show. **If you want to be involved, it's important to let us know by Tuesday, March 22nd.** We'll need to know *what you plan to do, and about how long it will take* so we can plan the show ahead of time. Give it some thought, and let's talk about it at school!

**To participate:** register on/by Tuesday, March 22nd

**General attendance:** register on/by Friday, April 15<sup>th</sup>

Email/FB message your UB Counselor or call  
1-800-581-2522



# Meet Audra McTague '2015 & K2A of the College of Atlantic

Shared by Dr. John Anderson,  
W. H. Drury Professor of Ecology/Natural History

*Current UBMS 9<sup>th</sup> grade students will travel to Great Duck Island on Monday, June 27 as part of the Sophomore Step-Up program for a first-hand look at Audra's research.*

I would like to introduce you to two Mainers. K2A is a Herring Gull. She hatched from a nest at the south end of Great Duck Island in June of 2015. Great Duck Island is a line of light on the southern horizon for most tourists looking out from Cadillac summit. It is also one of the oldest gull colonies in Maine, with records going back to the 19<sup>th</sup> century. In a time when gull populations around the western North Atlantic are plunging, Great Duck's importance as a robust colony can only increase. K2A's nest was one of over six hundred in the shadow of the lighthouse tower, watched over by students from College of the Atlantic, and protected in collaboration with the Nature Conservancy and the State of Maine. Hers was one of three eggs, but one of her siblings died in the first week after hatching. She was the smaller of the two surviving chicks, growing slowly on whatever her parents could bring to feed her.

Audra McTague is a student of gulls. She was born in Newport, Maine, a truckstop on Interstate 95 to most tourists hurrying to the wonders of the coast. It is also the gateway to the great wild lands that stretch north to the Canadian border. Life isn't always easy. Audra's Dad was involved in a horrifying automobile accident which left him permanently disabled. Audra worked hard at school. She was selected to Upward Bound, a program that works with High School students to help them enter careers in Math and Science. She got to go on expeditions in the wild lands and along the coast. She applied to the College of the Atlantic, and was accepted Early Decision. Before she even started at College of the Atlantic, she joined a team of students studying gulls on Great Duck Island.

Every year a small sub-set of nests on Great Duck is selected for close monitoring in order to determine survival and fledging success. Chicks are banded using metal federal bands, and weighed and measured each time they are caught. It is a stressful process for everyone: chicks are good at hiding, adults strike at researchers, researchers want to move quickly so minimize their impact on the birds, but not so quickly that they run the risk of injuring anyone. (Continued to next page)

If a chick makes it to three weeks or so it gets an additional colored band –Maroon with a white letter/number combination that can be read by someone with sharp eyes or a pair of binoculars.

On the 22<sup>nd</sup> of July Audra banded Federal Band Chick 58636 as K2A. Summer faded. K2A was small for a fledgling, and light weight is not a good sign in a bird that has a long distance to go, and Great Duck birds had been known to disperse as far south as Florida. The highest mortality in gulls probably occurs in the first three to six months of life as they learn to operate in the wide world on their own. September, and the young gulls are all gone. Audra is in college for the first time –a first generation college student, studying stars and biology, and Human Ecology. Winter, and snow, and more classes. Sometimes she sneaks out to look at Snowy Owls and Bohemian Waxwings, but her teachers want her chained to a desk. K2A is a memory of sunny days on islands and the foghorn calling.

Then, in the middle of January a birdwatcher in Pascagoula Mississippi saw a gull with a band on its leg. He focused in with his camera and caught the band numbers. The picture went on Facebook, and now we know where K2A is. She has traveled over 1500 miles from Great Duck to winter beside the Singing River. There are islands, and crabs and other gulls to meet, and cars, and predators, and pollutants to avoid. If she survives the winter she will probably drift north to the Chesapeake Bay, and if we are lucky, maybe birders there will spot her and report her progress. For the next three years she will ride the winds and haunt the sandflats and harbors. She will know the capes and islands of the Carolinas. Audra is in school. She wants to give back and she wants to learn. This summer she is arranging for some of the next generation of Maine Upward Bound students to spend a day venturing to Great Duck to see gulls and guillemots, to hold a wild bird in the hand and to dream of long flights to new horizons. She will be giving presentations to Maine High School students about why science and math matters, and why one must also bring these things to the out-of-doors and the out-of-doors to the classroom. Later in summer she will be working in a lab in Boston, studying the role of stress hormones in the ecology of the gulls back in Maine. Carhorns will replace foghorns, but on the edge of the harbor there will still be gulls to remind her of the winds to seaward.

In three years K2A will be an adult. She may return to Maine to breed and produce her own chicks. They may in turn be banded and pass down the river of air and time to the south and back in an endless wheel of life and living, linking Maine to the wide world and the wide world to Maine. In three years Audra will graduate from college, first in her family to do so. She will set off on her own journeys, new birds, new islands new horizons.

Gulls can live a long time –more than 20 years. K2A may grow used to young scientists coming to check her eggs, band her chicks, learn how data points can give a trend and how a trend can become a prediction. Audra will be a scientist, with students of her own. Her hair will start to grey, and days in the field will etch lines in her face, oars will mark calluses on her hands. Of what value is a gull? Maybe only this: the lessons of the free air and the wild sky, that science is born in patience and brought forth in care and wonder, that the world is a wide and wilder place than any text book can ever teach us, or, as Gordon Bok reminds us:

“The gull on the long and lifting swell  
Is the world a given wing...”

All the best  
John Anderson