$E=(LG)^2$ Learning Green, Living Green

Spring 2010

Volume 3

Issue 1

DIS&BILITY SPOTLIGHT &T FSU

Anita Adkins

any students choose to attend Frostburg State University because of various majors, career guidance, and athletic programs that will enable them to follow their dreams. Some of these students have unique learning needs.

FSU is dedicated to producing graduates who can be successful in the workplace, but does it ensure that its students with disabilities are among this group? In order to learn, students with exceptional needs must have appropriate support and must be provided with the necessary services to match their individual learning needs. In addition, safely and effectively traveling inside and outside of facilities is key to their success.

The Student Learning Center is one way that the university attempts to provide these services. The center provides note-takers, sign language interpreters, readers for limited amounts of materials, orientation to the campus, and materials in alternative formats (i.e. Braille). The center is also responsible for insuring that students can navigate the campus. For example, if a walkway is covered with snow, a condition that can make traveling difficult for a student in a wheelchair or a student who is blind, the center communicates with appropriate personnel to have the sidewalks cleared.

However, some students are still faced with various challenges. For example, alternative materials are not provided until the need for the materials arises which results in students not understanding material, falling behind, or even performing poorly. In addition, some buildings do not contain room numbers and other printed information including signs in alternative formats.

Consequently, students, including those who are blind, may find it difficult

to locate a restroom or find a specific classroom. Also, note-takers are only provided to students after the start of a semester; more specifically, this means that students with disabilities do not receive note-taking services until at least two or more classes have been attended. As a result, student success is impacted. In order to sustain its reputation as a university willing to obey the Americans with Disabilities Act, FSU will need to constantly work toward finding solutions for many of these problems. One way the university will attract students with disabilities is through the recommendation of its current students.

As one of those students, I would recommend that other students with disabilities attend the university. I have witnessed FSU's attempt to improve or solve some of the problems with which it is faced. For example, the geography department has realized that accessible materials, such as tactile maps and globes, needed to be in existence prior to my taking my geography course. While the department is not able to help me per-

sonally due to the fact that I am already in the class and time to produce materials is limited, they are learning how to accommodate students in the future. For the future success of FSU students with disabilities, I would recommend that disability training seminars be provided to FSU faculty, because instructors know the material they are responsible for teaching, and therefore, could communicate with students with disabilities. Then, they could communicate with the Student Learning Center on how to make necessary adaptations.

FSU may face some challenges in regards to appropriately providing services to its students with disabilities. However, it is continuing to learn how to meet the needs of these students and it is willing to seek solutions to problems before these problems hinder the learning outcomes of its students. As a result, FSU is working toward producing students who can enter a promising career and contribute meaningfully to society.



Image by Christina N. McCormick Anita Adkins and Ms. Tracy Edwards with 3D model of a volcano for Geography

Table of Contents

Disability Spotlight at FSU	1
More Snow, More Salt	3
Finzel Swamp	4
Upward Bound	5
Our Nation's Symbol, Through Thick and Thin	6
Organic Places to Eat: Pricey or Reasonable?	6
Maryland Cuts Funding for Chesapeake Bay	7
Grass Roofs Movement	9
Blast Fishing	10
The Real Cost of Meat	11
Reason to be Vegan	11
Sustainable Exercise Equipment	12
Sunny Side of Snacking	13
Seeing Green: Initiative for the Future	13
Staff Page	14

Frostburg Comes Together

Nailah Hunter

ver 2,000 Frostburg students, faculty, and staff congregated on the Frostburg State University upper quad the evening of Tuesday, April 20th to hold a candlelight vigil in memory of Brandon Carroll. Carroll, a basketball player and student at Frostburg, was shot and killed after an altercation with three other students. Ellis Hartridge, another victim, is expected to recover. The suspect, Tyrone Hall, is in custody.

There was a slight breeze as candles were lit and groups of students and faculty members gathered on the field. A distinct sadness was felt amongst the crowd as they marched along the same route taken by the unity walk that honored Martin Luther King, Jr the previous Thursday.

The memorial ceremony was held in the gym, where Carroll's family, friends, and team reflected on his life. Dr. Jonathan Gibralter, the school's president, gave a moving speech encouraging the students to move forward as a community and to not let the recent tragedy define the campus. Frostburg will move forward and sustain its integrity as an institution and as a community.

More Snow, More Salt

Cameron Pugh and Scholastique Koolimo

aryland has seen a substantial amount of snow in the winter of 2009-2010. The aftermath from the storms continues

to have serious economic and environmental impacts on Maryland.

Maryland is already facing a major deficit, and removing the record snowfall far outstripped its initial budget plan. According to the Maryland Department of Transportation, the state spent \$26.9 billion on snow

removal in the month of December alone, and Frostburg spent over \$45,000 for contractors and equipment. This budget does not include compensation given to employees who worked overtime to ensure that the job was completed; these workers totaled up over 750 hours of labor. Due to the sheer amount of snow, over 30 inches when the snow stopped, essential services were interrupted throughout the area, including emergency vehicles and trash pickup.

Another issue is that the Maryland state government does not cover the cost for snow removal on school property. This resulted in money being taken out of the school budget to ensure snow removal and repairs to facilities, further straining Frostburg's already tight financial resources.

While the snow itself posed a serious problem, human responses may have a negative impact as well. Of particular note is the impact of common salt, which is used to help melt ice on roads. Salt enters the ecosystem when melting snow carries the salt into the ground where it affects plant life and soil. Increased levels of salt can retard growth in plants and affect their ability to absorb water and nutrients. As salt builds up in fresh water, fish and other aquatic animals begin to die off. Amphibians are also susceptible to excess salt in the water. Their skin is greatly affected by salt and can cause them to take in less water, which will cause their skin to dry out and kill them.

We need to develop more eco-friendly methods of removing salt. Maryland has al-

ready started using a product made out of salt water to help prevent freezing and snow from sticking. This product is more environmentally friendly and reduces the amount of salt needed for snow removal. Other options include sand, which is less harmful to living creatures but also less effective than salt, and Potassium Acetate, which is as effective as salt but more expensive. A combination of these materials should be used until a better solution is discovered.

As the snow and ice melt, it carries the road salt into the ground and water supply.

The winter storms of last season hit every state except Hawaii.

Every year substantial funds are spent fixing roads corroded by road salt.





Joe Curtis

he Finzel Swamp, known to many locals as Cranberry Swamp, is a little-known local treasure trove of plants and wildlife. Located just seven miles outside of Frostburg, on Cranberry Swamp Road in Finzel, the swamp is home to species found mostly in Canada. The climate of the area makes it an ideal home for plants and wildlife that are rare this far south.

"They have trees and bugs there that are mostly found up in the tundra of Canada," said local outdoors enthusiast Floyd Presley. "One of the plants, Sundew, is insect-eating, and there are Tamarack Larch trees."

In 2005, the Nature Conservancy acted to preserve the integrity of the area and save ailing larch trees by removing roads that were interfering with the swamp's natural habitat. The swamp is one of only two locations where larch trees grow in Maryland.

Presley added that the prevalence of cranberries in the swamp led to its initial naming. "There used to be a lot of cranberries there; it used to be called Cranberry Swamp. It's not really the Finzel Swamp."

In the winter and early spring, the swamp is difficult to access due to high waters and/or snow buildup. However, it is an intriguing place to visit in the summer and fall. FSU students wishing to visit should take I-68 West to Exit 29 in Finzel. Cranberry Swamp Road is a right turn directly after the community park.



Upward Bound

Joe Curtis

ocal high school students may see their grades and their chances of obtaining college scholarships drop if student assistance programs such as Upward Bound are discontinued next year.

The Upward Bound program at Potomac State College in Keyser, W.Va. helps disadvantaged students graduate from high school and go on to succeed in college. It is one of 964 Upward Bound projects currently operating in the United States. However, proposed Federal budget measures could derail up to 200 of these programs starting in 2011.

DeAnn Greenawalt, director of the Potomac State College program, is concerned about the sustainability of local Upward Bound projects. "I never want to take it for granted," Greenawalt said. "West Virginia is an impoverished state, and the college-going rate is low. People think that means we're safe, but I think as soon as you start thinking that, you could be in trouble."

Ronnie Smith, a 16-year-old Keyser High School student who dreams of becoming an architectural engineer, said the loss of the Upward Bound program would negatively affect his personal life as well as his academic potential. "Not only would I be disappointed and bored because Upward Bound makes learning fun but it would lessen my chances of getting a scholarship and there would be more of a weight on my shoulders," he said. "Since I started with Upward Bound, my grades have gone up, especially in English."

For RC Cofield, a senior history major at West Virginia University who is preparing for his eighth summer with Upward Bound and third as a Tutor and Counselor, the program has been life-changing. "Honestly, Upward Bound has changed my life. I can't even fathom the person I would be if I had never become involved in this program."

The Potomac State College program consists of a residential summer program as well as a weekend component that runs for the length of the academic year. The summer program houses 40 disadvantaged local high school students yearly and runs for six weeks as students take part in academic classes, educational workshops, service learning, cultural field trips, and other activities. The Saturday academic year sessions provide academic classes, tutoring, and educational and guidance counseling to 60 students.

According to the Bureau of Labor Statistics, high school graduates earn an average of \$165 more per



RC Cofield is preparing for his 8th summer with the program

week than high school dropouts. Moreover, those with a four-year college degree earn nearly \$400 more per week than the average high school graduate. Post-program tracking indicates that Upward Bound students are four times more likely to obtain a four-year college degree than students from similar disadvantaged socioeconomic backgrounds who are not involved in the program.

If approved by Congress, the Federal budget measures would level fund TRIO, a group of eight Federal student assistance programs that includes Upward Bound, and would put a strain on hundreds of Upward Bound programs as they struggle to keep up with rising costs. The lack of additional funding combined with the expiration of the 2007 College Cost Reduction and Access Act, which provided funding for Upward Bound programs whose funding was not renewed during the last grant competition, would result in the loss of hundreds of Upward Bound programs. The Council for Opportunity in Education is encouraging individuals to contact their state Senators and Congressman to voice their support for Upward Bound

Joe Curtis, a staff member for E=(LG)², will serve as residence hall director at the Potomac State College program this coming summer. He has served on the Upward Bound staff for the past two years. FSU students should note that the university also holds an Upward Bound program; the TRIO office is located in Pullen Hall.

Our Nation's Symbol, Through Thick and Thin

Melissa L Brannon

n 1782, The United States of America chose the bald eagle as our national bird. As our nation's symbol, it represents bravery, pride, and independence

When Europeans first arrived on this continent, bald eagles were common. Native Americans believe that they held spiritual powers. Only the best of warriors were allowed to bare the eagle feather. As the human population increased across the continent, bald eagle populations started to decline due to lack of hunting regulations.

In 1940 the Bald Eagle Protection Act was passed after people began to notice the diminishing eagle population. This Act was effective and designed to reduce the harassment by humans on the population. However, people started using DDT, a pesticide used on crops, in large quantities, which decreased the bald eagle population because it was not able to withstand the negative effects that resulted from this harmful chemical. Con-

sequently, in the 1970's and 1980's, DDT was banned as an agricultural pesticide.

The bald eagle was officially declared an endangered species in 1967 throughout the United States. In 1973, the Endangered Species Act was signed into law by Richard Nixon. Until 1995, the bald eagle remained an endangered species in most states, and threatened in the rest.

In Maryland, Bald eagles are no longer on the Endangered Species list. It was recorded that in 1977 there were only 41 nesting pairs in the state.

As of 1999 there was a recorded 260 nesting pairs that produced 370 young. Today, there are over 2,000 bald eagles in the Chesapeake Bay area alone. If you visit Susquehanna State park and walk along the Wild Flower Trail, it is not un-

common to see more than one bald eagle.

The bald eagle recovery in the United States was due to strict conservation efforts at the local, state, and national level. This was not solely a governmental success. If it weren't for the help of United States citizens, our national symbol might very well be extinct today.



Organic Places to Eat: Pricey or Responsible?

Sidra J. Bing



he concept behind organic foods is one that is often misleading. Individuals usually associate the word "organic" with a vegan lifestyle. However, eating organically can be either a lifestyle or just a way to stay health conscious. More college students are adapting to organic and sustainable eating habits. Yet, the issue of high cost seems to discourage students. The process it takes to grow and distribute organic foods places a higher cost on the products. So the question is: where can students still enjoy these foods on their budget?

One issue for students is availability. Java City on campus has no organic coffees. At Mountain City Coffee and Creamery on Main Street in Frostburg, you can get a coffee for \$1.65 with refills for \$.75.

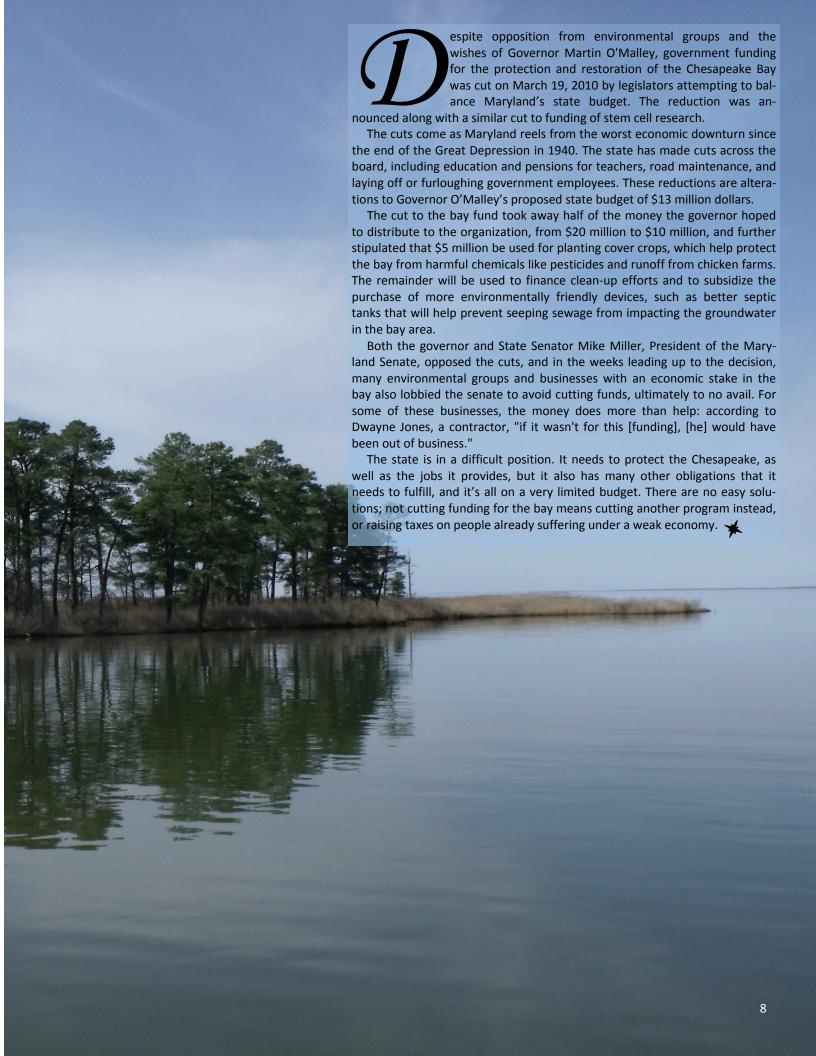
Local cafes such as Mountain City Cof-

fee and Creamery offer organic products at a reasonable price. Local restaurants such as Gianni's have organic pizza toppings for only \$10. If you are looking for a place to relax and have an alcoholic beverage, Oscar's Restaurant (located in Cumberland) has organic beers for only \$4. For restaurants that are out of town, try the Great Sage in Columbia, MD; this restaurant offers organic foods and is delicious as well.

Even though organic foods are usually costly, there are always places that are affordable as well as healthy. Doing research before going to restaurants is always essential. The key to being healthy is knowledge.

For more detailed information, visit: http://www.iloveindia.com/nutrition/ organic-food/index.html or www.fao.org/organics





A Grass Roofs Movement

Jay McCormick

new movement to modernize buildings and reduce emissions is rapidly becoming popular across the globe. Beginning in Europe and quickly spreading across the globe, business owners and homeowners alike have chosen to grow grass, flowers, shrubs, and even trees on their rooftops to give a unique style, as well as reduce Carbon Dioxide (CO₂) levels in the atmosphere.

A green roof uses a water proof membrane to cover the top of a building in order to prevent leaks. That membrane is then topped with soil or some sort of medium on which vegetation can grow. Some even have built in irrigation systems to lower water usage for tending the garden; thus making the building even more sustainable. Green roofs are not limited to commercial places or buildings with flat roofs. Many homeowners in Europe use green roofs, even on houses with angled roofs. Many just simply plant a layer of grass on roofs angled toward the sun.

The idea was first thought of by German scientists in the 1960's. Only recently, however, has the idea become a mainstream style that is becoming increasingly popular around the world. A law was recently passed in Switzerland which requires all new buildings to allocate at least 20% of rooftop space for "green roofing." The idea has not flourished in the United States yet like it has in Europe, though there are a number of small



business owners and homeowners who have adopted the idea in the U.S.

Many still remain skeptical of the idea, which is one reason it is not very popular in America yet. Some wonder about water or other substances from the roots systems causing leaks inside the building. However, the membrane German scientists developed is extremely strong and is often used in buildings solely for the purpose preventing leaks from rainwater. The downsides to a green roof are initial start-up costs, which can sometimes be quite pricy, and the need to frequently tend and maintain the garden. Startup costs run about \$15-\$25 per square foot for soil and grass seed. The most expensive component is the water-proofing membrane, which can cost about \$35 per square foot. Few problems have been reported with the membrane tearing or breaking, but all reports are said to have stemmed from the operator's error. Maintenance is relatively easy and is no different than maintenance for a normal garden.

The benefits of having a green roof far outweigh the downsides. Most importantly, green roofs can reduce the emissions of the building they are built on as well as decrease the CO₂ levels already present in the atmosphere. Green roofs also act as a layer of insulation on top of the building, keeping the building cooler in the summer and warmer and the winter. This ultimately leads to less energy use for heating and cooling the building. Green roofs can also give new habitats to wildlife, especially birds and insects. Furthermore, they are aesthetically pleasing to look at and offer a new, modern look to a home or office building.

Facts about Green Roofs:

Startup costs run about \$15-\$25 per square foot for soil and grass seed.

The most expensive component is the waterproofing membrane, which can cost about \$35 per square foot.

Advantages of a green roof include ecological, economic, and aesthetic benefits.

For more information about green roofs visit http://www.greenroofs.com/index.html.

BLAST FISHING

Ripley Hassel

last fishing, or dynamite fishing, is the practice of using explosives to kill schools of fish for easy collection. This often illegal practice can be extremely destructive to the surrounding ecosystem. Homemade bombs used in blast fishing not only kill fish but also destroy the calcium carbonate coral skeletons of coral reefs, and as a result, all that is left are rubble fields.

The elimination of the fish also affects the resilience of the coral reefs to climate change, further hindering their recovery. Single blasts cause reefs to recover in five to ten years, while widespread blasting, as often practiced, transforms these ecosystems into unstable rubble, and takes much longer to recover. Therefore, the local fish habitat is greatly reduced.

In addition to the loss of economic benefits, the damaged coral reefs that result from blast fishing lead to the decline of large quantities of fish species. Fewer fish to catch means that the fishermen are killing off their only source of income.

I took a scuba diving trip to the small island of Truk Lagoon, also known as Chuuk, and I was able to learn about the effects of blast fishing first hand. During World War II, the Japanese lost sixty supply ships and two hundred seventy five airplanes during a massive assault by Allied forces on February 17, 1944.

In the following years, local fisherman began to use this leftover ammunition and explosive material from the wrecks for blast fishing. They would take the still live ammunition and use the powder in the bullets to create bombs. Consequently, the underwater shock waves produced by the explosion caused the fish's swim bladder to rupture, stunning or killing it.

Only a small number of fish actually float to the surface and are brought in,

but most of them sink to the sea floor and are wasted. The explosions kill large numbers of other marine organisms in the vicinity and can damage or destroy the physical environment.

On one of the dives, I went aboard an ammunition ship. When I arrived in what was left of the cargo hold, the entire floor space was filled with still live .30 millimeter bullets and even larger cannon shells. There had been considerably more in the ship when it went down, but almost sixty years of raiding the ship for black powder to create fishing bombs diminished the supply.

So in all, blast fishing is not only harmful to both the local ecosystem and economy, it is also very ineffective. Authorities in areas where this practice is occurring, are doing everything they can to stop it, but extensive, and hard to patrol coastlines make it difficult for local officials to enforce blast fishing bans.





Reason to be Vegan

Sidni Giordano

According to a 2009 report from the United Nations Food and Agriculture Organization, the international meat industry generates about 18% of the world's greenhouse gas emissions, which is more than the world's transportation emissions. Jeffrey Moussaieff Masson, author of *The Face on Your Plate: The Truth about Food*, indicates that animals on factory farms in the United States produce 87,000 pounds of waste a second, which is 130 times more than the U.S. population .

What do others say?

"Animals are fed drugs to fatten faster and to keep them alive in conditions that would otherwise kill them, and they are genetically altered to grow faster or produce more milk or eggs than they would naturally."

-PETA

"Nothing will Benefit human health and increase the chances for survival of life on earth as much as the evolution to a vegetarian diet."

- Albert Einstein



ost people think that there are only two reasons to be vegetarian: either to be healthy, or because of moral issues

with consuming meat. However, the environment may be a reason now more than ever

to reconsider a meat rich diet. The reality is that the livestock industry contributes to massive land utilization, large scale energy use, climate change and air pollution, water use and degradation, and the spread of disease.

In 2006, the Food and Agriculture Organization of the United Nations published a report titled Livestock's Long

Shadow - Environmental Issues and Options in an effort to call attention to the "various significant impacts of the world's livestock sector on the environment." According to the report, about 30 percent of non-frozen land surface is used by the livestock industry, though a combination of the land used to grow feed and to raise livestock.

Cornell University estimates that the production of animal protein consumes eight times the fossil-fuel energy than the production of plant protein. Furthermore, animal protein is only 1.4 percent more efficient than plant protein. Instead, the land used to grow feed could be utilized to grow crops consumable by humans. David Pimentel, a professor of ecology at Cornell University, is quoted as saying, "If all the grain currently fed to livestock in the United States were consumed directly by people, the number of people who could be fed would be nearly 800 million ."

Robert Goodland and Jeff Anhang, co-

authors of Livestock and Climate Change, estimate that the live stock industry is responsible for 51 percent of annual worldwide greenhouse gasses. The analysis accounts for GHGs produced from the raising, production, transportation and preservation of feed and of livestock.

"The human Appetite for animal flesh is a driving force behind every virtual category of environmental damage now threatening the human future—deforestation, erosion, fresh water scarcity, air and water pollution, climate change, biodiversity loss, social injustice, the destabilization of communities and the spread of disease."

- World Watch Magazine

Ed Ayres, the editorial director of the Worldwatch Institute, states that it takes percent of all wheat, corn, and other grain grown in the U.S.A is fed to livestock. But disease is probably the most immediate impact felt by people. In factory farms, the animals

are usually kept in as little space as possible; this environment is perfect for bacteria transmission.

In order to compensate, farms place ever increasing amounts of antibiotics in the feed to stave off increasingly resistant strains of bacteria. And while there are strict regulations on the handling and treatment of human waste in the U.S.A., these regulations are loose for animal waste. The National Resource Defense Council says, "in spite of the huge amounts of animal wastes that factory farms produce, they have largely escaped pollution regulations."

According to Ed Ayres, In the U.S., live-stock now produce 130 times as much waste as people do. In a time when climate change, water usage and disease is on the forefront of everyone's mind, the world needs to realize the consequences of their taste for meat and dairy, and push for the food industry to become more ecologically sustainable.

Sustainable Exercise Equipment

Jay McCormick



o cut energy costs, many fitness centers throughout country are moving toward a business plan that focuses on sustainability. New technology is being used in fitness centers, including some college gyms, such as the one at the University of Kansas. Many exercise machines, such as elliptical machines and stationary bicycles, are wired to batteries that store energy, which are used to power lights, televisions, radios, or other gym equipment, significantly lowering energy

usage and costs.

The aggregate of people using the machines every day could add up to power a significant portion of the gym's electronics. Users can produce up to 50 watts per hour when exercising at an average pace. Not only can this lower an owner's energy bill over a period of time, but it can also be implemented as an effective marketing tool, thus attracting customers into the gym. Some places even have demonstration machines set up so that as soon as someone starts using a machine, a light bulb will turn on, showing the

user how sustainable exercise equipment saves power.

The University of Kansas recently retro-fitted several machines to accommodate this technology on some of their older equipment. The idea was proposed by a student in 2007, and such machines have been in use ever since.

Despite initial start-up costs, sustainable exercise equipment can lower energy bills and cut costs after just a few years of use.

FACTS ABOUT ECO FRIENDLY EXERCISE EQUIPMENT

- A class that uses 20 exercise bikes can generate 3.6 megawatts every year, which is enough power to light 72 homes for a month. This also reduces over 5,000 lbs of carbon emission.
- The inventors of SportsArt have created exercise equipment that use less power then traditional machines.
- Woodway treadmills last longer then traditional ones and use 50% less energy then the average treadmill.

For more information about these exercise equipment and more please visit: http://fitness.glam.com/articles/detail/gyms_go_green/



Seeing Green: Initiative for the Future

Courtney Sturtz

ith the progression into the new decade, the "going green" agenda is one particular topic that is on everyone's minds – preservation is the key to keeping our natural resources intact. Heather Largent, a student

from Frankfort High School, is one student among many doing her best to raise awareness on environmental sustainability. The "Green Team" is a part of an on-going campaign of programs within the school to help raise awareness and get the job done.

Largent, 18, has been a part of the team since it began nearly two years ago. The group involves close to 60 students ranging from 10th to 12th grades who all have the same motto mind: "Starting small, but thinking big." So far, they have helped shred Christmas trees for mulch that is used on school grounds, enabled the use of recycling bins in each of the classrooms, and sold flower bulbs for gardening. They also try to involve the

community by encouraging recycling. Their current project is trying to raise enough money to build picnic tables for the school. In the future, they hope to have enough funds to build a green house. "It is a great program that should be in all schools," said Largent, who has also recently started a campaign to recycle out-dated phonebooks no longer in use.

It only takes one person to think outside of the box in order for progress to be made – even high school students are taking the initiative to step out and make a difference. Frostburg State University has done its fair share in promoting environmental sustainability, but with all the university has to offer, a designated group like the "Green Team" is not currently on-campus. This is a situation that can be easily remedied, and it starts with us – we are the future. "Going green" is not only important, but it is a way of life.

E=(LG)² Staff



Back row (left to right): Chris Murray, Sidra Bing, Scholastique Koolimo, Karla Ralda, Courtney Sturtz, and Geoff Krasley-Lawhorne Front: Jay McCormick, Nailah Hunter, Ripley Hassel, Anita Adkins, Joe Curtis, and Cameron Pugh

Front cover design: Chris Murray I Front cover photo: Cameron Pugh

Back cover design: Sidra Bing & Jay McCormick I Back cover photo: Karla Ralda

Mission Statement

E=(LG)² is a student run magazine, advised by Dr. Sydney Duncan, dedicated to educating the student body on affairs concerning sustainability. In this issue the staff writers covered everything from statewide environmental topics to disability concerns on campus.

This issue also covers the dark events that have occurred this semester with the death of one of our own, Brandon Carroll, and the special union that this loss has brought to campus.

