

Minutes of Environmental Concerns Committee
September 27, 2011
Submitted by Kathy Shea, Curator of Natural Lands

Present: Gene Bakko, Christina Herron-Sweet, Paul Jackson, Alan Norton, Pete Sandberg, Kathy Shea, Judy Stromayer, Rachel Wieme

Welcome, Introductions

The meeting was called to order at 8 a.m. and new committee members were welcomed and introduced. The following are members of the committee for 2011-12.

Chair: Kathy Shea, Professor of Biology and Environmental Studies and Curator of Natural Lands

Diane Angell, Assistant Professor of Biology

Gene Bakko, Retired Professor of Biology and former Curator of Natural Lands

Jim Fisher, Grounds Manager

Paul Jackson, Associate Professor Chemistry and Chair of Environmental Studies

Leon Narvaez, Professor of Spanish and Faculty Governance Representative

Alan Norton, Vice President and Treasurer

Pete Sandberg, Assistant Vice President for Facilities,

Judy Stromayer, Director of Recreation

Students:

Jon Henn, Student Naturalist

Christina Herron-Sweet, Student Naturalist

Rachel Wieme, Student Naturalist

This committee reports to the Faculty Governance Committee and our minutes are posted on the Faculty Governance Committee webpage. Alan Norton and Leon Narvaez sit on both committees.

Summer Activities on the Natural Lands

Four students worked on Natural Lands projects this summer under the supervision of Kathy Shea. The students were Andrew Kaul and Steve Kannenberg supported by the Natural Lands Endowment, and Chanda Oviedo and Rachel Wieme. Supported by the National Science Foundation Research Experiences for Undergraduates (REU) program. All except Chanda, from the College of Menominee Nation, were from St. Olaf. They focused on three research projects: growth patterns of trees in the conifer restoration area, a comparison of plant species diversity, biomass and soil characteristics in a chronosequence of prairies of different ages, and nesting success of bluebirds in the bluebird trail boxes. They also worked on removing invasive species such as garlic mustard and buckthorn. Other student research projects, mentored by Biology/Environmental Studies faculty members Diane Angell, Steve Freedberg and John Schade, at least partly on the natural lands examined variation in turtles, bees, soil respiration, small mammals and reed canary grass (an introduced species). Seven St. Olaf students, or just graduated students, attended the national meeting of the Ecological Society of America in Austin, Texas to present results of research projects on the prairies

and forest of the Natural Lands and local streams. Their posters and/or talks were well received.

Two students have recently worked with Dave Legvold, one of the farmers renting land from St. Olaf, and Kathy Shea to determine optimum levels of nitrogen to use on corn field. Rebecca Spurr, started work on the project last fall and was featured on the St. Olaf webpage this summer. Rachel Wieme has continued the project through the summer and fall of 2011, with the ultimate goal of reducing nitrate runoff in streams and reducing eutrophication.

Facilities made a new truck, a Ford Ranger, available to use for Natural Lands work. This was much appreciated as the clutch went out in the old red truck and it was not worth repairing. Gene Bakko and Don Skluzacheck prepared the site and planted a mix of prairie grass and forbs on the old rubble pile, along the road to the composter. Gene and Don mowed the thistle in the 2009 tree seeding area and the students watered the large trees we planted there last spring to jump-start the forest restoration.

Fall Projects

The student naturalists help worked on several fall projects.

1. We had a Cannon River Cleanup as part of the Cannon River Watershed Partnership (CRWP) watershed-wide cleanup. About 30 students volunteered to help from 9-noon on Saturday, Sept. 17. St. Olaf has adopted the stretch of the river from Dundas to the Hwy 3 bridge in Northfield so most students picked up trash along the banks on the west side of the river starting in Sechler Park. We had four students in paddling in canoes furnished by the CRWP and two walking in chest-waders. The canoes started at Memorial Park in Dundas and stopped in Sechler Park before the Hwy. 3 bridge.
2. The Student Naturalists sent an email to JC's and offered to give tours to first year student looking for corridor activities. They have several tours scheduled.
3. Applying herbicide on cottonwood trees in the prairie is a priority for fall. Because of several large cottonwood trees adjacent to wetlands many cottonwood seeds are released each spring and germinate in the prairie. The large prairie burn last fall killed many of the trees, but many more have grown this year. This will be a continual maintenance problem and Christina is organizing spraying this fall as weather permits.
4. Trees in and out of the deer exclosures in the 2009 tree seeding area will be measured this fall. Jon is organizing this project to provide baseline data for future studies on the effects of deer herbivory on seedling establishment.
5. Seed collection is being coordinated by Rachel. This fall we are collecting forb seed to augment the rubble pile planting. We had about 12 people volunteer to collect seed on Friday afternoon, Sept. 30. We provided volunteers with paper bags, garden gloves and clippers when needed. Each type of seed was placed in a different bag and seeds will be removed from flower heads over the winter.
6. The naturalists led a buckthorn pull on October 7 to pull buckthorn in the woods south of the baseball pond. We need to use herbicide on the larger seed producing trees to reduce the number of seedlings.
7. The trail on the eastern side of Norway Valley is eroding in places and the grounds crew workers put crushed limestone on parts of the trail to help reduce erosion.
8. Pete Sandberg brought the request to name parts of the Natural Lands to the Board of Regents Meeting during Oct. 6,7. The primary reason for names is to make it easier to

locate different places or describe where projects are taking place. We also requested to name a pond Bakko Pond, after the first curator of Natural Lands. However, naming things after humans was not approved and we will call it Big Pond. A question was raised about whether we should name something after the donors to the Natural Lands endowment, but so far there is no policy.

Other Projects

1. Peter reported that they are in the process of obtaining permits for the art barn construction. It is considered a pole barn and will have one composting toilet, radiant floor heat, and a rack for solar panels. It will be well-insulated, with 8 inch wall panels, a 10-12 inch thick ceiling, and an R70 rating. The plan is to erect the building on Oct. 29. Peter Hendrickson will participate. The building will be located in the field with the wind turbine.
2. Other future construction plans will focus on a roundabout to be established at the top of the hill from the Hwy 19 entrance to campus and on dorm renovations.
3. The camping question has come up among students and we can point out the Rules for Use of the Natural Lands list on the website and on the kiosk board saying that camping is not allowed on the Natural Lands. The Dean of Students office has approved camping on some mowed areas close to dorms where bathroom facilities are available. Public safety is then notified about the camping location. Carleton also has a no camping policy on Arboretum land.
4. We discussed putting a bench at the high point on the far prairie loop. Alan reminded us that we need to get permission to do this on the U.S. Fish and Wildlife easement. Gene will contact Mike Molling at U.S. Fish and Wildlife. We also have a bench, made by Scott Barvir as a senior project for the Environmental Studies Seminar, to install in the restored forest area east of Regents Hall.
5. Dave Legvold, one of the farmers renting St. Olaf land, has asked to put in a short driveway out of the field connecting with the road to the radio antenna in order to avoid coming out onto Cedar Ave. in a tractor at a place where there is a slight hill making it difficult to see oncoming traffic. The committee had no objections as Legvold was planning to pay for it himself. He also had a small part of the field on the west side that was flooded with the heavy rains in the early part of the summer. The committee thought that it would be worth waiting another year to see if it is a recurring problem before doing anything.

Minutes reflect events through Oct. 10.

The next meeting will be at the end of the semester.

Minutes of Environmental Concerns Committee
December 14, 2011
Submitted by Kathy Shea, Curator of Natural Lands

Present: Gene Bakko, Jon Henn, Christina Herron-Sweet, Jim Fisher, Paul Jackson, Leon Narvaez, Alan Norton, Kathy Shea, Judy Stromayer,

Welcome, Introductions

The meeting was called to order at 8 a.m. and Leon Narvaez was introduced as the representative from the Faculty Governance Committee. The minutes from our September meeting were previously circulated and posted on the Faculty Governance Committee webpage.

Fall Activities

The Student Naturalists, Christina Herron-Sweet and Jon Henn reported on fall activities. A Natural Lands photos contest was held and the winning photos are posted on the Natural Lands website, www.stolaf.edu , on the Naturalist's Bulletin Board on 4th floor of Regents Hall and on the kiosk at the entrance to the Natural Lands. The Naturalists offered tours of the natural lands through JC's of first year corridors and about six corridors signed up for the tours. A goal is to make sure that students know about the Natural Lands starting as first-year students. We also had three well-attended buckthorn pulls and cleared buckthorn from much of the understory in an area near the baseball field. Most of the volunteers came from the Intro to Environmental Studies class taught by Paul Jackson who gave credit for volunteer hours on environmental projects. Another project this fall was to compare growth of tree seedlings in and out of the deer exclosures in the '09 Tree Seeding area. Workers also applied herbicide (Garlon4) to trees invading the '01 and '02 prairie east of Campus Drive (the road to the composter). We had a prairie seed collection day and students will remove seeds from seed heads over the winter. Seed will be used for the newly planted rubble pile along Campus Drive. Christina gathered information and made signs for a waterfowl display outside of Regents 150. We recently had a pileated woodpecker professionally mounted on a tree trunk and Christina is also working on information for this display on the 4th floor of Regents.

Gene Bakko installed a bench built by Scott Barvir for the Environmental Studies senior seminar last spring in the forest area southeast of Regents Hall. Gene and Kathy talked with people at U.S. Fish and Wildlife Service about putting a bench at the high point of the northern Prairie Trail and will fill out the paperwork to apply for approval.

Rachel Wieme presented a talk to on her research on nitrogen management on St. Olaf farmlands on Dec. 14 at 11:10 in Regents 410. She has worked with Dave Legvold to determine appropriate nitrogen fertilizer levels of St. Olaf farmland and presented her work to the Board of MN Waters and other interested groups.

Other Activities

The foundation was poured for the Flaten Art Barn just east of the wind turbine. Plans are to erect the frame in the spring. For the new Natural Lands map we need to add the Art Barn and the road to the wind turbine.

A recent grant to the Environmental Studies program by the M.A. Cargill Foundation has led to discussion of how best to use the land around the wind turbine and if STOGROW should move to a 2 acre area north of the wind turbine.

Students have requested that we find a way to groom ski trails at St. Olaf. Jim reported that you have to be an employee (trained student/staff) of the college to use college equipment. A snowmobile is needed to use the ski groomer that was donated to the college. Jim will work on this.

The new Green Bikes and bike racks have been used a lot this fall. Students check out bikes in the library, like checking out a book. They get a helmet and a key when they check out the bike. The bikes have a bell and a padlock. There is more demand for small and medium frame bikes.

Gene reported that he gave a talk on the Natural Lands while on a pheasant hunting trip to South Dakota with President David Anderson and other St. Olaf alums.

Leon Narvaez suggested that Jim Farrell's new book, "The Nature of College" would be good reading for all of us, as well as first year students.

The next meeting will be in early spring semester.

Minutes of Environmental Concerns Committee
May 17, 2012
Submitted by Kathy Shea, Curator of Natural Lands

Present: Diane Angell, Gene Bakko, Jon Henn, Christina Herron-Sweet, Leon Narvaez, Alan Norton, Kathy Shea, Jim Fisher, Rachel Wieme

Thanks and Welcome

The current Student Naturalists, Jon Henn, Christina Herron-Sweet and Rachel Wieme, are graduating and were thanked for their work. They all have interesting plans for next year. Jon has a Fulbright Fellowship to study forest restoration in Argentina, Christina will be studying invasive plant species at Montana State University and Rachel will be studying nitrogen cycling in agriculture at Washington State University. The Student Naturalists for next year were unable to attend the meeting, but we announced their names and look forward to working with them. They are Andrew Kaul, Kirsten Maier, Roz Anderson, and Emma Cornwell.

Spring Activities

Prairie Burns: the weather cooperated, allowing us to do two prairie burns in April. We burned parts of the 2001 and 2002 prairies east of Campus Drive (the road to the composter) and north of the trail (close to the new Mayo Building), as well as the 1989 prairie. Gene and Don had mowed firebreaks and several students helped with the burn. On a second day we burned the prairie east of STOGROW. There was enough green growth that this fire didn't burn as well.

Invasive Species: Natural Land workers pulled out the garlic mustard around Old Main. We organized a buckthorn pull on May 12 with students from the Volunteer Network. While pulling buckthorn students found another area with garlic mustard by the Baseball Pond and pulled those plants out.

Phenology Walks: Student Naturalists led weekly phenology walks for anyone in the St. Olaf Community. The goal of the walks is to educate people about the Natural Lands and document spring flowering dates of different plant species and arrival of bird species. Data are kept so comparisons along the same route can be made from year to year. The Student Naturalists also led a walk in partnership with the Cannon River Watershed Partnership on May 12 with a focus on effects of restored natural areas on wetland and stream water quality.

Spring Photo Contest: Winners of the spring photo contest were announced to the Environmental Studies and Biology Departments, on stolaf-extra, on the Natural Lands web site, on the Student Naturalists Facebook page, and posted on the Student Naturalist Bulletin Board and on the kiosk at the entrance to the Natural Lands. Rachel received a number of comments thanking her for sharing the photos. Each photo contest this year (fall, winter, spring) received a number of entries.

Environmental Coalition: Christina reported that limited progress has been made to reduce the amount of bottled water on campus. Awareness of the waste of resources through the use of bottled water has been increased and the administration plans to install more filling stations for water bottles.

Tree pruning: Gene and Don have taken piles of branches from tree pruning to the composting site at Sechler Park, now that it is open.

Art Barn

Wes Durham, a student working with Kathy on the Natural Lands maps, added the Flaten Art Barn and road to the wind turbine to the Natural Lands map. The Art Barn will be finished as funding is available. A berm was built on the south side to divert water. The building has electrical capability, LED lighting, a slate roof, and horizontal lap siding. A bathroom will need to be a portapotty for now.

Plans for the building are still unclear, but many of us hope to use it as an outdoor or on-site classroom.

Summer/Future Activities

Grass netting on lawns: There has been concern about snakes and other small mammals caught and killed by grass netting used in landscaping. Jim Fisher informed us that they are legally required to use it on hilly areas to reduce erosion and that it cannot be pulled unless the ground has a 90% plant cover. It is supposed to be biodegradable, but some kinds may not degrade quickly. It can also cause problems for the mowers.

Hwy. 19 Entrance, Storm Retention Pond: As part of the reconstruction of the Hwy. 19 entrance to St. Olaf, a round-about will be constructed at the top of the hill by Hill-Kitt dormitory. A retention pond under construction in front of Hill-Kitt will collect run-off from the hill and roadway.

Bench on North Trail: After obtaining approval from the U.S. Fish and Wildlife Service we plan to install a bench at the high point of the far north trail through the prairie. Pete Sandberg offered one of the benches west of the chapel as they plan to remove them soon. Gene and Kathy will work on this.

Prairie Seed: Over the winter students cleaned some prairie seed collected on the Natural Lands in the fall. We plan to sow this seed in the rubble pile prairie planted last year and in areas we burned. Diane Angell has offered to give us some pasque flower and porcupine grass seed from her remnant prairie. Students will need to plant the porcupine grass seed, one seed at a time, and spend some time doing this both at Angell's prairie and the St. Olaf prairie.

Grant positions - Sustainability Catalyst and GIS Specialists: Funding to St. Olaf for the Environmental Studies program from the Margaret A Cargill Foundation will provide for a couple temporary positions. Jim Farrell will be the Sustainability Catalyst for two years to establish a campus-wide focus on sustainability. Student sustainability coordinators have been hired for each dorm and will work on increasing awareness about sustainability issues especially for first year but also for all students. We will be looking for a two-year GIS specialist position to help maintain the GIS lab and help develop GIS projects in Environmental Studies and across campus.

STOGROW: Ray Larson, one of the farmers who leases St. Olaf land, was unable to till their garden, so students were not sure how to get it tilled so they could start planting. Reginaldo Haslett-Marroquin (at Dave Legvold's suggestion)... had a tractor small enough to do the job and was willing to let them use it. Students also had to repair torn parts of their greenhouse.

Expansion of Natural Lands to South: In the latest round of land use planning (several years ago) the Board of Regents approved expanding the Natural Lands in the field to the south near Sechler Park. Currently this field is in alfalfa. This summer students will start developing a plan for this expansion, starting on the west side.

Our next meeting will be at the beginning of the fall semester.