



## **LINNAEUS ARBORETUM STRATEGIC PLAN 2009**

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The Linnaeus Arboretum on the campus of Gustavus Adolphus College contributes to the excellence of Gustavus Adolphus College. The Arboretum is named for Carl Linnaeus an 18<sup>th</sup> Century Swedish botanist whose revolutionary work, the binomial system for naming plants and animals, was published in 1753 and is still in use today. The Linnaeus Arboretum at Gustavus has a rich history of dedicated visionary individuals whose forethought included the creation of campus green spaces for the spirit as well as for teaching. One such individual, Charles Mason championed the arboretum idea resulting in the establishment of the Linnaeus Arboretum in 1973. The Friends of the Arboretum were established in 1989 and have supported the arboretum mission and programs.

The Arboretum on the southwest corner of campus includes 135 acres and features a prairie, wetlands ponds, a hardwood forest and a coniferous forest in addition to formal gardens. The Arboretum plays a key role in the academic life of the college as an important laboratory for classes and research. Moreover, the Arboretum manifests the College's commitment to environmental stewardship and provides both the College Community and Southern Minnesota residents with a natural setting for renewal and reflection. Though clearly the educational value of the Arboretum is primary, the gardens serve as sites of beauty and harmony and contribute to making Linnaeus Arboretum an important destination for area elementary school classes, the general public as well as its on-campus constituency.

Thirty-five years after the initial trees were planted the Arboretum remains a vital part of the academic program and ambience of Gustavus Adolphus College. Just as its trees, flowers, and prairie have matured so has the vision. In 2004-05 an Arboretum task force, directed by President James Peterson, revisited the mission, vision and strategic planning.

### **MISSION**

*"The mission of the Gustavus Adolphus College Linnaeus Arboretum is to facilitate environmental education and enhance the application of environmental ethics for all areas of study. The Arboretum provides the College and community a living sanctuary of plants for education, environmental stewardship, reflection and recreation."*

## **OBJECTIVES**

1. Education  
*Education is the most important objective of the Linnaeus Arboretum, serving the needs of the Gustavus and St. Peter Community. The Arboretum serves as a living museum of the campus and community and as such provides educational opportunities including:*
  - *Formal Education (college classes)*
  - *Research (student, faculty research)*
  - *Informal Education (campus education, community outreach K-12)*
  
2. Environmental Stewardship  
*The Linnaeus Arboretum promotes environmental stewardship and wise use of resources as an example of progressive environmental practices. This includes the cultivation of native plant communities (e.g. tall grass prairie) and managing renewable resources (e.g. woodlands).*
  
3. Reflection  
*The Linnaeus Arboretum provides a natural environment of beauty for retreat into the natural world that encourages contemplation, meditation, and spiritual renewal.*
  
4. Recreation  
*The Linnaeus Arboretum provides a natural environment to encourage personal wellness in an outdoor setting.*

The vision for the Arboretum is an exciting mix of projects that reflect the imagination, stewardship and dedication to environmental education of Gustavus Adolphus College. Briefly the vision includes raising the awareness and engagement of the campus community, the local public including K-12 schools and others outside Saint Peter of the Arboretum as a destination and educational resource. The specific goals / initiatives within each objective are below:

- Leadership
  - Executive Director
  - Naturalist
  - Gardener
- Education
  - Endow the Linnaeus Symposium.
  - Expand and enhance education offerings.
- Stewardship
  - Enhance, manage and maintain:
    - formal gardens, Coneflower Prairie, the deciduous and coniferous woodlands
  - Facilities
    - Melva Lind Interpretive Center Expansion / Renovation
    - Endow the Campus South Mall and West Malls.
- Reflection
  - Endow, develop, and manage meditation gardens
- Recreation

## **LEADERSHIP**

Effective leadership is critical to the continued development of the Linnaeus Arboretum. The establishment of three endowed positions in the Arboretum will enable the College to make significant progress toward implementation of this vision. Until 2005-06 the leadership of the Arboretum was guided by Jim Gilbert who served as the Arboretum Director / Naturalist. In 2005 the task force divided the duties into two separate positions, an executive director and a naturalist.

### Director

Dr. Cindy Johnson-Groh, a faculty member in biology, was appointed as the executive director to succeed Jim Gilbert. Dr. Johnson-Groh's duties include overseeing all functions of the Arboretum including the budget and planning, working with the Director of the Physical Plant on plantings and physical maintenance, supervising the Arboretum staff, working with Institutional Advancement to secure funding among other duties. The addition of the director position was in recognition that a faculty member has greater capacity to develop and strengthen the Arboretum's place in the overall mission of the College. Endowing this position as a full time position will enable the College to pursue the other goals / initiatives noted in this plan.

### Naturalist

The Naturalist position is the public face of the Arboretum. The creation of a separate naturalist position has allowed us to focus more energy on strengthening the interpretive capacities of the Arboretum. Currently the naturalist position is shared with biology (greenhouse manager at 13 hours weekly). The endowment of this position would enable the College to retain excellent naturalists. A naturalist with a master's degree could teach in the Environmental Studies program (as did Jim Gilbert) and establish long-term relationships with campus faculty and area schools.

### Gardener

The third position is the establishment of a dedicated Arboretum gardener. The Arboretum has enjoyed strong support from the College's physical plant staff. However because other duties often prevent the College's grounds staff from attending Arboretum needs, planting and maintenance needs are neglected or delayed (e.g. pruning of trees has largely been neglected). An Arboretum gardener would provide stronger oversight of plantings and collaboration with the grounds staff resulting in an even more spectacular Arboretum. Moreover, the establishment of a dedicated Arboretum gardener will allow the campus to capture volunteers who are interested in gardening.

Strong leadership, innovation and imaginative thinking are what will allow the Linnaeus Arboretum to continue to flourish. It is the director, naturalist and gardener who will plant new prairie seeds, teach college students, elementary students and retired town residents, design interpretive exhibits and be the caretakers for this precious resource. An endowment for each of these positions will enable Gustavus to become an even stronger leader among colleges where environmental stewardship and education is more than a few environmental studies classes.

## EDUCATION

Among the objectives of Linnaeus Arboretum, education is clearly its foremost priority and includes a wide range of activities formal college classes (e.g. Biology, Swedish, and Dance) to informal education (e.g. bird watching, spring wildflower hikes, and pond study). Students range in age from pre-school to retired members of the community. There are two primary education initiatives: the Linnaeus Symposium and engaging the community in a comprehensive environmental education.

### Linnaeus Symposium

The Linnaeus Symposium established in 2003 was designed to help enrich faculty, student and larger community thinking about environmental stewardship and wise use of resources. The symposium features speakers in the field of botany and/or environment. It is the College's objective that, similar in quality to the Nobel Conference, the Linnaeus Symposium will achieve recognition for significant environmental educational offerings to Gustavus faculty and students, as well as to a wider general public. The Linnaeus Symposium is the perfect centerpiece of this new effort to strengthen the education and service of the Linnaeus Arboretum. The first two symposia focused on ethnobotany and included international known speakers (Paul Alan Cox, Wade Davis and Mark Plotkin). The third Linnaeus Symposium will be held April 22, 2009, and is entitled: *Global Trees: Releaf – Relief*. This symposium features Dr. Margaret Lowman a tropical ecologist known internationally for her tree canopy research.

Endowing the Linnaeus Symposium will enable us to attract internationally known scientists capable of sharing their knowledge, excitement and passion with broad audiences. Insuring that students have open access and opportunities to visit with these scholars to be inspired, motivated and awed is an important component of the Linnaeus Symposium.

### Environmental Education Outreach

Sustainable environmental initiatives include education as a significant component. It is the responsibility of Gustavus to education students to be responsible environmental stewards. If we fail to educate students for lives of leadership, service and stewardship with regard to the environment we fail to prepare them for a world that will be increasingly challenged by issues of sustainability. The Linnaeus Arboretum plays a significant role in educating Gustavus students about the environment.

## STEWARDSHIP

The stewardship, expansion and maintenance of facilities is vital to fulfilling the mission of the arboretum. This includes expanding the Melva Lind Center to accommodate multiple uses, designing green spaces on campus with education as the center focus and providing facilities for the campus and public to learn about environmental education and stewardship.

### Gardens and Woodlands

Historically the Arboretum has been managed indirectly on a case by case basis, without a formal management plan. Most arboreta or gardens have formal policies regarding management and tree replacement. Establishing such a management plan for the

campus and formal arboretum is important. In addition to the management of natural resources this also includes the establishment of an Arboretum Tribute Gift plan that enables the College to direct gifts to the best possible use.

### ***Formal Gardens***

The Linnaeus Arboretum formal gardens surrounding the Melva Lind Interpretive Center are used extensively by numerous groups including picnics, college and community meetings, youth groups, weddings, and community members interested in plantings for Southern Minnesota among others. There are several gardens in the Arboretum which we are continuing to develop or have plans to develop. Examples of this include the development of a formal Swedish Garden, Japanese Garden, the herb garden, perennials garden and native plants garden. These areas will be managed to maximize diversity and educate the public regarding plant varieties for this area of Minnesota.

### ***Coneflower Prairie***

The Coneflower Prairie was planted November 2008 and is 70 acres. This restored prairie offers an ideal opportunity for students to learn about the ecosystem which dominated the area historically. In this prairie a contoured landscape provides a sense of seclusion and allows visitors to imagine a prairie that stretched miles. The prairie offers opportunities for student-faculty research, interpretive hikes and quiet contemplative wanderings. Management will include burning, cutting and managing invasive species to achieve a biologically diverse prairie.

### ***Woodland Management***

No management plan exists for the deciduous and coniferous forests. Currently these communities have representative woody species of deciduous and northern forests, but lack significant diversity or physical components of these communities. The Arboretum task force recommended development of a plan to diversify the forest communities in a manner that more closely resembles their natural counterparts. This will include planting shrubs and wildflowers in those communities along with removal of invasive species.

### **Melva Lind Interpretive Center**

The Melva Lind Interpretive Center serves multiple purposes including: meetings for campus groups, departments and social gatherings (e.g. Shop Talk), weddings and other family gatherings and as a classroom for the educational programs and classes. In addition it houses several offices and staff (Arboretum staff, Environmental Studies and the Johnson Center for Environmental Innovation). The Melva Lind Interpretive Center serves as an interpretation center although this usage is limited by conflicts for space. Expanding the educational usage to develop a museum-like facility, with information on the Arboretum gardens, natural areas and Southern Minnesota, while still preserving its meeting function is challenging. The Center is used increasingly for meetings, weddings and social gatherings. The setting is conducive for these uses offering a contemplative, natural and beautiful setting. Public need for a space like this has expanded significantly and with more intentional marketing can serve as a significant income and service to the community.

Expansion / renovation of the Melva Lind Center will enable the Arboretum to serve multiple purposes simultaneously. Priorities of a renovation would be to provide:

1. A new large meeting space that would accommodate up to 150 people (double the current capacity).
2. A remodeled space to accommodate interpretive center activities and support education activities concurrent with meetings in an adjacent room.
3. Remodeled office spaces. Currently two staff members share an office and one member has no office.
4. Bathroom access for staff members. (Currently the staff uses the same bathroom facilities as guests. Staff members need to interrupt meetings to access the bathroom.
5. Increased storage.
6. Models of environmentally sustainable design.

### Mall Development

The Linnaeus Arboretum formally occupies 135 acres on the south side of campus. As a result of the work of the 2004-05 task force the entire campus was designated as Arboretum to be used as an educational landscape. The Eckman Mall which extends north of Christ Chapel is an example of a landscape that combines the academic and aesthetic properties. The South and West Malls will do the same. Gustavus Adolphus College values its natural green spaces as places of learning, contemplation and community.

#### ***South Mall***

Development of the South Mall, the green space between the Christ Chapel and the Arboretum, provides a natural opportunity to infuse the educational components of the Arboretum into a part of the campus that is heavily academic. (The South Mall is surrounded by academic buildings). Currently there is a substantial range of disciplines that make use of the arboretum as a laboratory for research purposes, as a site for plays, dances, musical events, and as grist for art students as well as a location for recreation. The South Mall will manifest a more intentional focus on education by incorporating features such as a geology rock garden or an outdoor classroom or amphitheater. It might include for example a group planting of maples demonstrating native maples, introduced maples and the concepts of species variation and cultivars. The South Mall will incorporate several outdoor classrooms for formal class use and informal student gatherings.

#### ***West Mall***

The West Mall extends west of Christ Chapel to the Arboretum just beyond Ring Road. This section of the Mall, though flanked by a few academic buildings (Olin and the projected new academic building), is largely surrounded by residential spaces. Consequently the overall theme here is gathering and community. This mall will include a large sunken plaza adjacent to Christ Chapel that is suitable for larger gatherings and in the winter will be used as an ice rink. Further to the west the theme continues to be community, both of humans and natural communities. Plantings in this area will be, from east to west, prairie, deciduous woods and coniferous woods. This forms a fitting transition to the restored woods and prairie adjacent to the west in the Linnaeus Arboretum. This area will include stylized plantings representative of the natural communities. For example the prairie area will include raised beds of prairie wildflowers interspersed with Kasota stone (local

stone) benches and Kasota stone accents in the sidewalks. The deciduous area will include oaks, maples and basswood trees interspersed with Adirondack chairs gathered in ways conducive to conversation. The coniferous forest will have pines and fir interspersed with log benches and granite accents in the sidewalks.

## REFLECTION

The meditation gardens reflect Gustavus' commitments to its heritage and mission. It communicates the interdisciplinary nature of the liberal arts, and supports whole-person, life-long learning. It encourages individuals to develop a mature understanding of their faith, and nourishes their commitment to lives of leadership and service in the world. A committee composed of campus representatives worked with landscape architect, Herb Baldwin to develop formal drawings of the proposed meditation gardens.

### Labyrinth

A labyrinth is a classic metaphorical and literal means of facilitating the cycle of going inward and returning outward, symbolizing the inner and outer landscapes of one's life. We have chosen a classical Swedish design with a spiral center. Sweden has many labyrinths of ancient origin, and we have selected the design to affirm Gustavus' heritage and ongoing connections with Sweden. The path will be constructed of sturdy flat stone and the "walls" between the circuits of the path will be native short grass.

### Peace Circle

The peace circle draws one into quiet appreciation for the many cultures and languages of the world, uniting a global humanity in its shared yearning for wholeness and wellbeing. A peace rock will grace the middle of the peace circle. The peace circle is divided into four quadrants to represent the four colors of humanity. This design has Native American elements to honor those who inhabited this land prior to settlement.

### Japanese Gardens

The unifying landscape between the peace circle and labyrinth is inspired by traditional Japanese gardens and includes a meditation shelter. It provides additional quiet spaces to encourage close-in reflection on the order and beauty of the garden itself. It also encourages one to look out across the surrounding landscapes – the Uhler Prairie, the Jim Gilbert Teaching Pond and the trees of the Linnaeus Arboretum – as a means to encourage a sense of interconnectedness with the whole world.

## RECREATION

The Linnaeus Arboretum has become a destination for hiking, jogging, cross-country skiing and kite flying. It offers 1.5+ miles of trails with trail expansion planned for the Coneflower Prairie. The opportunities for a quiet stroll or a vigorous run in a natural setting are important to college students, college faculty and staff and citizens of Saint Peter. Recreational opportunities also include events like the annual Scarecrow Contest, Fireside Chat and the Julgran Christmas Cookie Contest. These latter events are intended to create fun, community building events that encourage the campus community to visit the Arboretum.

## **SUMMARY**

The Linnaeus Arboretum is an integral part of Gustavus Adolphus College. Students study its plants, staff members jog its pathways and community members wander the gardens in search of the perfect yard tree. All members of the Gustavus Adolphus College and St. Peter communities seek green spaces within the arboretum to rejoice on blue sky days, basking in the sun to celebrate a good test grade, promotion or friendship. Likewise members seek these quiet spaces in the Arboretum to resolve difficult life questions. It is a living landscape capable of caring for the Gustavus and St. Peter Communities just as we are stewards of this land and the creatures with whom we share this precious resource.

How fortunate we are thirty-five years after the inception of the Linnaeus Arboretum to be the beneficiaries of that vision and the seeds that were planted. We now have the privilege and responsibility of expanding that vision. We are the caretakers who must insure that the future of the Linnaeus Arboretum continues to and enhances education, stewardship, reflection and recreation.