Collegiate Academy of the North Carolina Academy of Science

ANNUAL REPORT 2007

Members for 2006-2007

Memberships included 13 group members and 11 individual memberships.

Group Memberships:
Campbell University, Catawba College, East Carolina University, Elon University, Gardner-Webb University, Guilford College, Lenoir-Rhyne College, Meredith College, Peace College, University of North Carolina at Greensboro, University of North Carolina at Pembroke, Wake Forest University, Warren-Wilson College

Group Memberships:
Davidson College, East Carolina University, Gardner-Webb University, North Carolina A&T State University, North Carolina State University

Officers for 2006-2007

President: Amanda Moore Catawba College
Vice President: Beth Rice Elon University
Co-Secretary: Sarah Dougherty Lenoir Rhyne University
Co-Secretary: Andrea Garrison Gardner-Webb University
Historian: James Smith East Carolina University

Faculty on the Executive Committee for 2006-2007

Executive Director: Dr. Karen Guzman Campbell University
Executive Director: Dr. Yuko Miyamoto Elon University
Faculty Advisor: Dr. Joe Poston Catawba College
Lecture Program Coordinator Dr. Lisa Bonner Peace College
Yarbrough Grants Coordinator Dr. W. David Webster UNC-Wilmington
Collegiate Academy Activities

Fall Undergraduate Research Workshop
The workshop was held on November 18, 2006 at East Carolina University in Greenville. Dr. Lee Sutton organized the meeting and was assisted by Dr. Gerhard Kalmus. There were 40 students and 13 faculty in attendance, totaling 53 participants. These individuals represented 5 institutions. Highlights of the meeting included:

- Softball social on Friday evening
- Two panel discussions: one composed of undergraduate students and another composed of graduate students
- Scientific trivial pursuit: teams composed of a pair of students (1 from ECU & 1 from another institution) competed for semi-valuable prizes giving the students an opportunity to get to know a student from another institution
- As always, a great set of presentation by faculty from ECU

Annual Meeting
The meeting was held at East Carolina University on March 30 - April 1, 2007. There were a total of 137 students representing 15 institutions.

Collegiate Academy Initiatives & Accomplishments

Participation of the NCSAS in the Annual Meeting
A goal in the CANCAS Strategic Plan for the past two years has been to invite High School State Science Fair winners from the NCSAS to present at the Annual Meeting. This March that goal was realized: six students were able to present their posters and interact with participants of the meeting. Four of these students were able to stay and be recognized at the Awards Banquet on Saturday evening.

CANCAS Website
Work has progressed on the design of a website that unifies all three branches of the Academy into one website. The final product is not yet ready but promises to be available in the near future.

New Logo
A new logo was created that will help to emphasize the unity of the three branches of the Academy.

Revision of the CANCAS Handbook and Constitution
Minor revisions were completed and published on the website.

Derieux Awards, 2007

Poster Presentations

<table>
<thead>
<tr>
<th>Place</th>
<th>Student</th>
<th>Topic Area</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Ashley Lowery</td>
<td>Health Sciences</td>
<td>Gardner-Webb</td>
</tr>
<tr>
<td>2nd tie</td>
<td>Summer Choudury</td>
<td>Health Sciences</td>
<td>ECU</td>
</tr>
<tr>
<td>2nd tie</td>
<td>Corey Caldwell</td>
<td>Chemistry</td>
<td>NC A&amp;T State</td>
</tr>
</tbody>
</table>
### Oral Presentations

<table>
<thead>
<tr>
<th>Place</th>
<th>Student</th>
<th>Session</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Kali Marquardt</td>
<td>Biotechnology</td>
<td>Elon</td>
</tr>
<tr>
<td>2nd</td>
<td>Carly Morrison</td>
<td>&quot;</td>
<td>Peace</td>
</tr>
<tr>
<td>1st</td>
<td>Erin Anderson</td>
<td>Botany</td>
<td>UNC-G</td>
</tr>
<tr>
<td>2nd</td>
<td>Neal Maker</td>
<td>&quot;</td>
<td>Warren-Wilson</td>
</tr>
<tr>
<td>3rd</td>
<td>Shelby Cooksey</td>
<td>&quot;</td>
<td>Catawba</td>
</tr>
<tr>
<td>1st</td>
<td>Nicholas Kochenour</td>
<td>Cell &amp; Developmental</td>
<td>ECU</td>
</tr>
<tr>
<td>2nd</td>
<td>Laura W. Sherrill</td>
<td>&quot;</td>
<td>Guilford</td>
</tr>
<tr>
<td>1st</td>
<td>Kim Phelps</td>
<td>Chemistry</td>
<td>Lenoir Rhyne</td>
</tr>
<tr>
<td>2nd</td>
<td>Aaron Malenke</td>
<td>&quot;</td>
<td>Warren-Wilson</td>
</tr>
<tr>
<td>3rd</td>
<td>Laura Foulke</td>
<td>&quot;</td>
<td>Warren-Wilson</td>
</tr>
<tr>
<td>1st</td>
<td>Travis Briggs</td>
<td>Ecology</td>
<td>Warren-Wilson</td>
</tr>
<tr>
<td>2nd</td>
<td>Sarah Dougherty</td>
<td>&quot;</td>
<td>Lenoir Rhyne</td>
</tr>
<tr>
<td>1st</td>
<td>Betsy Kain</td>
<td>ENVS</td>
<td>Warren-Wilson</td>
</tr>
<tr>
<td>2nd</td>
<td>Suzanna Kivette</td>
<td>&quot;</td>
<td>Peace</td>
</tr>
<tr>
<td>1st</td>
<td>Chinwendu Enyioha</td>
<td>Physics / Mathematics</td>
<td>Gardner-Webb</td>
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<tr>
<td>2nd</td>
<td>George Keel</td>
<td>&quot;</td>
<td>Warren-Wilson</td>
</tr>
<tr>
<td>1st</td>
<td>Kristen Cecala</td>
<td>Zoology</td>
<td>Davidson</td>
</tr>
<tr>
<td>2nd</td>
<td>Mary Womack</td>
<td>&quot;</td>
<td>Lenoir Rhyne</td>
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<tr>
<td>1st</td>
<td>Veronica Garcia</td>
<td>Molec. Biol.</td>
<td>Guilford</td>
</tr>
</tbody>
</table>

### Derieux Judges, 2007

David Bjorkman, East Carolina University  
Jason Bond, East Carolina University  
Mark Brinson, East Carolina University  
Francie Cuffney, Meredith College  
Greg Despopoulous, East Carolina University  
Mary Farwell, East Carolina University  
Alex Georgakilas, East Carolina University  
MaryKate Holden, Bennett College  
Tom Jones, Gardner-Webb University  
John Kenney, East Carolina University  
Trip Lamb, East Carolina University  
Melanie Lee-Brown, Guilford College  
Joe Luczkovic, East Carolina University  
Yuko Miyamoto, Elon University  
Linda Niedziela, Elon University  
Rebecca Tart, Catawba Valley Medical Center  
Heather Vance-Chalcraft, East Carolina University  
Jennifer Weber, East Carolina University  
Lei Zhang, Winston-Salem State University
### Yarbrough Grant Report: Grant Recipients, 2007-2008 Academic Year

<table>
<thead>
<tr>
<th>Student Recipient</th>
<th>Faculty Sponsor</th>
<th>Institution</th>
<th>Proposal Topic</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Veronica Anderson</td>
<td>Paul Bartels</td>
<td>Warren Wilson College</td>
<td>Morphological and genetic characterization of a new tardigrade from Great Smoky Mountains National Park</td>
<td>$100</td>
</tr>
<tr>
<td>Moriah Dawn Floyd</td>
<td>Karen Joslin</td>
<td>Warren Wilson College</td>
<td>Soil-management history as a factor in Mexican bean beetle preference for string bean plants</td>
<td>$50</td>
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<tr>
<td>Anita Goodrich</td>
<td>Mark Yates</td>
<td>Warren Wilson College</td>
<td>Light intensity and growth form of American butternut</td>
<td>$50</td>
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<tr>
<td>Forrest Heacock</td>
<td>John Brock</td>
<td>Warren Wilson College</td>
<td>Heavy metals of the French Broad River: potential pollution from a metal recycling plant</td>
<td>$50</td>
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<tr>
<td>Lindsey Kenz</td>
<td>Karen McDougal</td>
<td>Lenoir-Rhyne College</td>
<td>The effects of abiotic factors on chlorophyll disintegration and leaf abscission in <em>Acer rubrum</em> and <em>Quercus rubra</em></td>
<td>$300</td>
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<tr>
<td>David Idol</td>
<td>Constance Rogers Lowery</td>
<td>Catawba College</td>
<td>Shared resistances in bluegill sunfish to glochidial larvae of freshwater mussels</td>
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<tr>
<td>Julia Mead</td>
<td>John Brock</td>
<td>Warren Wilson College</td>
<td>Heavy metal concentrations in soil surrounding New Orleans construction and demolition landfills</td>
<td>$50</td>
</tr>
<tr>
<td>Camille Prevost</td>
<td>Dean Kahl</td>
<td>Warren Wilson College</td>
<td>Determination of three monoterpene toxicity on the hemlock wooly adelgid</td>
<td>$50</td>
</tr>
<tr>
<td>Carol Sevin</td>
<td>Victoria Collins</td>
<td>Warren Wilson College</td>
<td>Lentinan concentration in shiitake mushrooms grown and stored</td>
<td>$50</td>
</tr>
</tbody>
</table>

### Lecture Program

To expand the list of speakers, a call was sent out through the Academy’s List-Serve for faculty interested in participating in the lecture program. As soon as the new website is available, these names and information about the program will be updated online. The new website should allow establishment of a better method to track the use of the program and determine its effectiveness.

Respectfully submitted,
Karen Guzman, Executive Co-Director