The NRES Program in 2012-2013

"Greetings" from the Natural Resources and Environmental Sciences (NRES) Secondary Major at Kansas State University! The NRES program will begin its 22nd year as a secondary major this coming fall. As one of the largest secondary majors on campus, we have enrolled over 1000 students in the NRES program since 1991. With its strong presence on campus, the NRES secondary major continues to be a key contributor to environmental and sustainability education among the undergraduates of the university. As the contribution later in this newsletter from NRES Alumnus and Director of Sustainability Dr. Ben Champion documents, K-State is making good progress toward becoming a more sustainable campus. Student numbers in the NRES program remain strong and we continue to attract undergraduates from many departments across the university. As of this writing, 80 students from five different colleges are enrolled in the NRES program. During the just completed academic year, 40 students joined the NRES program. In calendar year 2012, 28 students completed their K-State degree with the secondary major; an additional 16 students finished the NRES degree in May 2013. Since the program began in 1991, 637 students have completed the NRES secondary major.

I would like to recognize the K-State faculty members who supported the NRES program over the last year as instructors of the capstone course or members of the board of directors. In the fall and spring semesters, Jim Steichen (Biological and Agricultural Engineering) and Kevin Price (Agronomy and Geography) guided students in the capstone class. The NRES board members for this academic year were Jeff Williams (Agricultural Economics), Jeff Peterson (Agricultural Economics), Mickey Ransom (Agronomy), Nathan Nelson (Agronomy), Stacy Hutchinson (Biological and Agricultural Engineering), Kendra McLauchlan (Geography), Shawn Hutchinson (Geography), and Anita
Dille (Agronomy). Thank you for supporting the program this year with your expertise and time!

The continued financial support from Provost April Mason, the Colleges of Agriculture (Dean Floros) and Arts and Sciences (Dean Dorhout), and the Department of Biological and Agricultural Engineering (Professor Harner) is much appreciated. Without this support, the program could not exist.

Finally, after serving as NRES director since 2001, I will be stepping down effective 1 July 2013 in order to devote more time to my role as department head in geography. Professor Shawn Hutchinson (Geography) has been named interim director of the NRES program for the 2013/14 academic year. I have enjoyed working with many colleagues and students across campus over the last 12 years. The program is in excellent hands with Shawn as director.

To our many NRES alumni, please let us know what you are doing by completing the survey found at the end of this newsletter. We especially enjoy hearing about the role the NRES program has played in your professional life.

Charles W. Martin
NRES Director
785-532-6727
(cwmgeog@ksu.edu)

NRES Student Focus
The NRES secondary major at K-State has been critical in helping me to understand many perspectives relating to the environmental issues of our time. Through the NRES program, I was able to interact and learn from people in different departments on campus. This helped me to understand in greater detail the diverse skills and knowledge that we will all need to bring together and harness to solve the many interdisciplinary problems we face.

My undergraduate degrees in physics and NRES allowed me to understand the fundamental science of how the world works and to begin to learn more about how social and environmental issues are related. I am now pursuing my MA degree in geography, further refining my knowledge of the human dimensions of global change and the Earth’s climate system. I hope to use my diverse training to work towards solutions to the many problems and injustices present in today’s society.
I am thankful for everything that I have learned in the NRES program, and I know that it will continue to train talented and capable students to work towards the changes needed to pass down the best possible planet to future generations.

Matt DeCapo
May 2012 NRES Graduate
M.A. Student, Department of Geography
Kansas State University

K-State Sustainability

Much progress has been made at K-State this past year in sustainability efforts. The Office of Sustainability has continued to develop the EcoReps network, and this year rolled out the Greening Your Workplace program with a 140 item checklist of ways small and large that departments can reduce their footprints through behaviors and decisions. It also continued a successful interns program, with interns taking the lead in several important areas of sustainable campus development - in Housing and Dining, the EcoReps network, bike planning, and public transit support. The Office has also been working with a network of faculty and students on planning for a new biodiesel production facility to convert used cooking oil from campus residence halls and the Student Union into fuel for campus recycling trucks.

Others have also been increasing their support. The student government has created a Green Action Fund of $40,000 to support student-proposed sustainability projects to benefit the student population on campus. This might be used for projects like the biodiesel project above, increasing recycling or food composting infrastructure, a bike share program, solar panels, or other creative projects proposed by students. The university also has recently completed an updated Campus Master Plan with a strong emphasis on supporting sustainability. Increasing emphasis on bike/pedestrian and public transit throughout campus and de-emphasizing personal cars is a major element of this new master plan, as is an emphasis on increasing green space and rehabilitating Campus Creek as a natural amenity and healthy stormwater management feature.

The EcoReps network and Office of Sustainability gave out campus awards to four projects this year - 1) a large pervious pavement project with bioretention cells for stormwater management at the new child care center on campus, 2) a department paving the way in digitizing HR forms, reducing paper consumption by ~30%, and helping half a dozen other departments make the conversion, 3) a student-organized Give It Up For Good project to divert furniture and appliances from residence halls during move-out to charity, and 4) special recognition for the exceptional leadership the K-State Recycling
Program has performed over the past year and a half in increasing our campus recycling rates and expanding services.

These are just a sample of the various activities in K-State sustainability. There are innumerable classes, special events and lectures, and research projects each year related to sustainability. Over the coming year, the university will be developing a formal strategic planning process to develop a Sustainability Strategic Plan for K-State in concert with K-State 2025. We'll be working to develop goals across all functions of the university, including curriculum, research, operations, student and campus life, and engagement. The NRES program will be an important feature in those conversations regarding campus curriculum. I look forward to the involvement of the NRES program in that process in helping determine where we go from here.

Ben Champion, D.Phil.
K-State Director of Sustainability

NRES Capstone Course Projects in 2012-13

Fall 2012

*Estimating Redcedar (Juniperus Virginiana) Biomass in Northeastern Kansas*
Crystal Allison, Tanner Greve, Grant Power, Neal Rasmussen, Laura Smith, Cole Starkey

*Stormwater Management: A Report on Stormwater Management for the City of Manhattan, Kansas*
Kristin Copeland, Sophia Ford, Daniel Snyder, Levi Sutton

Spring 2013

*Groundwater Management District 4*
Alex Lord, Jamie Hitchcock, Nathan Owens, Rachel Hoppins, Retta Harwood, Yacine Ait Si Amer

*Estimating Biomass of Eastern Redcedar (Juniperus Virginiana) with Key Variables and Understory Analysis*
Tyler Bletscher, Chelsea Corkins, Rachel Enns, John Jones, Michael Kaiser, Matti Kuykendall, Debbie Mildfelt, Jake Rockwell, Paul Waters, Mike Weber, Thomas Weninger, Danielle Williams
**Kansas State University NRES Alumni Updates**

We enjoy hearing from the alumni of the NRES program. Please take a few minutes to send us some news about yourself and your activities for inclusion in the next *NRES Alumni Newsletter*! **Thank you very much!**

| Name: ______________________________ | Occupation: ______________________________ |
| Mailing Address: ______________________ | Title: ________________________________ |
| ______________________________ | Employer: ______________________________ |
| E-Mail Address: ______________________ | Degree(s): __________________________ |
| Year(s) Graduated: ____________________ |

Any other information you would want to include in the next *NRES Alumni Newsletter*!

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Please return this form to:

NRES
Department of Geography
118 Seaton Hall
Kansas State University
Manhattan, KS 66506
E-mail: cwmgeog@ksu.edu
Please take a few minutes to answer the questions below and return it at your earliest convenience. The survey will help us better manage NRES experiences for our majors. Your responses may be sent to NRES, 118 Seaton Hall, KSU, Manhattan, KS 66506, or via e-mail to the current director (cwmgeog@ksu.edu). If you would like to receive this survey form by e-mail, please contact one of us. Thank you for sharing your thoughts.

Survey of NRES Secondary Major Alumni from Kansas State University

1. How did you first learn about the NRES Secondary Major?
   a. Professor in one of my courses
   b. NRES student
   c. NRES web site
   d. KSU Undergraduate Catalog
   e. Academic advisor
   f. Other _____________________

2. Overall, my experience with the NRES Secondary Major was positive.
   a. Strongly Agree
   b. Somewhat Agree
   c. Neither Agree nor Disagree
   d. Somewhat Disagree
   e. Strongly Disagree

3. Overall, the NRES Secondary Major helped to further my career or education following graduation from Kansas State University.
   a. Strongly Agree
   b. Somewhat Agree
   c. Neither Agree nor Disagree
   d. Somewhat Disagree
   e. Strongly Disagree

4. The NRES Capstone Course helped to further my career or education following graduation from KSU.
   a. Strongly Agree
   b. Somewhat Agree
   c. Neither Agree nor Disagree
   d. Somewhat Disagree
   e. Strongly Disagree

5. Having a secondary degree in natural resources and environmental sciences has been beneficial in my post-graduation job search, work, or education.
   a. Strongly Agree
   b. Somewhat Agree
   c. Neither Agree nor Disagree
   d. Somewhat Disagree
   e. Strongly Disagree

6. The advising I received in the NRES program was of a high quality and helpful to my academic progress.
   a. Strongly Agree
   b. Somewhat Agree
   c. Neither Agree nor Disagree
   d. Somewhat Disagree
   e. Strongly Disagree

7. Would you be willing to come back in the next five years to share your post graduation experiences?
   a. Yes
   b. No

(Continued →)
Please answer the following questions in as much detail as possible

8. Are you currently working, or have you worked, in a field related to natural resources or environmental sciences?

8a. If so, what is (was) the nature of the work?

9. Who is your current employer?

10. In looking back at your experiences in the NRES program, what could be done to improve the secondary major?

11. Are there any other experiences relating to the NRES Secondary Major that you would like to share with the Board of Directors?
Soil sampling with hand auger

Delineating field study site for eastern redecder project

Coring eastern redecder tree