Thank you for attending the 19th Annual McNair Forum

Ronald E. McNair Program
University of North Dakota
PO Box 9027
Grand Forks, ND 58202

Phone: 701-777-4931
Fax: 701-777-3627

Ronald E. McNair Program Staff:

Elaine Metcalfe
TRIO Project Director
elaine.metcalfe@und.edu

Patrice Giese
Assistant Director
Phone: (701)777-4910
Email: patrice.giese@und.edu

Jill Teters
Program Coordinator
Phone: (701)777-4931
Email: jill.teters@und.edu

A Division of Student and Outreach Services at the University of North Dakota

The McNair Program is one of five federally funded TRIO Programs sponsored by the United States Department of Education at the University of North Dakota. UND’s Ronald E. McNair Program receives 100 percent of its $243,000 annual budget from the Department of Education.

Equal Opportunity/Affirmative Action
Policy Statement

It is the policy of the University of North Dakota that there shall be no discrimination against persons because of race, religion, creed, color, sex, disability, sexual orientation, national origin, marital status, veterans’ status, or political belief or affiliation, and the equal opportunity and access to facilities shall be available to all. This policy is particularly applicable in the admission of students in all colleges and in their academic pursuits. It also is applicable in University-owned or University-approved housing, food services, extracurricular activities and all other student services. It is a guiding policy in the employment of students either by the University or by non-University employees through the University and in the employment of faculty and staff.

The Title IX, Section 504, and ADA Coordinator for UND is located in the Affirmative Action Office, 101 Twamley Hall. The mailing address is Box 7097, Grand Forks, ND 58202-7097; telephone (voice) 701-777-4171. Concerns regarding Title IX, Title VI, Section 504, and ADA may be addressed to her or to the U.S. Department of Education, Office for Civil Rights, 800 Maryland Avenue, 8th floor, Kansas City, MO 64106, as prescribed by Title XI, Education Amendments of 1972; Title VI of the Civil Rights Act of 1964; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975; and the Americans With Disabilities Act of 1990.
<table>
<thead>
<tr>
<th>Name</th>
<th>Major/Minor</th>
<th>Mentors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jodie Houle</td>
<td>English</td>
<td>Sebastian Braun</td>
</tr>
<tr>
<td>Rachel Hill*</td>
<td>Elementary Education</td>
<td></td>
</tr>
<tr>
<td>Jennifer Hayes</td>
<td>Anthropology</td>
<td>Phoebe Stubblefield</td>
</tr>
<tr>
<td>Melissa Gibson*</td>
<td>English</td>
<td>Heather Terrell</td>
</tr>
<tr>
<td>Kayla Ford*</td>
<td>Sociology</td>
<td>Tom Stokke</td>
</tr>
<tr>
<td>Andy Erickson</td>
<td>Physics</td>
<td>Tim Young &amp; Geza Kovacs</td>
</tr>
<tr>
<td>Shelley Davis</td>
<td>Psychology</td>
<td>Jeffrey Weatherly</td>
</tr>
<tr>
<td>Logan Stundal*</td>
<td>Political Science &amp; Indian Studies</td>
<td></td>
</tr>
<tr>
<td>Nichole Nelson*</td>
<td>Political Science</td>
<td>Joshua Guggenheimer</td>
</tr>
<tr>
<td>Jason McCoy*</td>
<td>Political Science</td>
<td></td>
</tr>
<tr>
<td>Melvina King</td>
<td>Geography</td>
<td>Douglas Munski</td>
</tr>
<tr>
<td>Christopher Atkinson</td>
<td>Major: Geography</td>
<td></td>
</tr>
<tr>
<td>Garrett Japen*</td>
<td>Major: Geology</td>
<td></td>
</tr>
<tr>
<td>Karen Borgen</td>
<td>Major: Criminal Justice Studies</td>
<td></td>
</tr>
<tr>
<td>Cole Ward</td>
<td>Major: Criminal Justice Studies</td>
<td></td>
</tr>
<tr>
<td>Rachel Hill</td>
<td>Major: Political Science</td>
<td></td>
</tr>
<tr>
<td>Leslie Yellow Hammer</td>
<td>Major: Psychology</td>
<td></td>
</tr>
<tr>
<td>Jason McCoy</td>
<td>Major: Philosophy</td>
<td></td>
</tr>
<tr>
<td>coconut</td>
<td>Major: Social Science</td>
<td></td>
</tr>
<tr>
<td>Leslie Yellow Hammer</td>
<td>Major: Psychology</td>
<td></td>
</tr>
<tr>
<td>Rachel Hill</td>
<td>Major: Political Science</td>
<td></td>
</tr>
<tr>
<td>Leslie Yellow Hammer</td>
<td>Major: Psychology</td>
<td></td>
</tr>
<tr>
<td>Rachel Hill</td>
<td>Major: Political Science</td>
<td></td>
</tr>
<tr>
<td>Rachel Hill</td>
<td>Major: Political Science</td>
<td></td>
</tr>
</tbody>
</table>

19th Annual McNair Forum

Thursday, April 14

Oval Presentations, Memorial Union—River Valley Room

9:00-9:20 am  Ilse Coleman

9:20-9:40 am  Karen Borgen

9:40-10:00 am  Kayla Ford

10:00-10:20 am  Rachel Hill

10:20-10:40 am  Shelley Davis

11:00-11:20 am  Leslie Yellow Hammer

11:20-11:40 am  Rachel Hill

11:40-1:00 pm  LUNCH (on your own)

1:00-1:20 pm  Karen Borgen

1:20-1:40 pm  Rachel Hill

1:40-2:00 pm  Rachel Hill

2:00-2:20 pm  Rachel Hill

2:20-2:40 pm  Rachel Hill
Hello my name is Ilse Coleman. I am a year one occupational therapy student at UND. I am from El Paso Texas, and I enjoy many different hobbies and activities. My main hobby is volunteering for various events on campus and within the community of Grand Forks. However, I also love to dance, play volleyball, play boardgames, and read. I am laid back, flexible, and try my best to maintain a flexible positive attitude. I love school, learning, and I am always eager to learn anything I can! My experience in McNeese has been incredible. Though this program, I have challenged my skill-set and grown personally and academically through the myriad of learning opportunities this program offers. As a McNeese scholar the most significant lesson I have learned is that I am capable of achieving my goals no matter how difficult the challenge may be. I am eternally grateful and thankful to the staff of the McNair program for their dedication to the program and hard work to make all the entities of the program available to their students.

Mentor: Anne Haskins, Ph.D., is an Assistant Professor in the Occupational Therapy Department at UND. She earned a Ph.D. in Teaching and Learning/Educational Foundations & Research from the University of North Dakota in 2008, Master of Arts Degree in Occupational Therapy at The College of St. Catherine in St. Paul, MN, and a Bachelor of Science Degree in OT from the University of North Dakota. Dr. Haskins teaching concentrates on: Introduction to Occupational Therapy, Quantitative Research Methods in OT, Principles of Adult Education, Occupation and Vocational Group Leadership in Occupational Therapy, and Interprofessional Health Care. Her areas of interest and experience include: interprofessional health care processes, perceived psychological stress of university students, hard therapy and orthotic fabrication, psychology and psychosocial aspects of physical dysfunction, industrial therapy, and health sciences research.

Abstract

Lateral epicondylitis, commonly known as tennis elbow is the most prevalent elbow diagnosis affecting people aged 30-50 years. This chronic condition affects individuals usually affects 35-55 years old. (Shiri & Vikari-Juntura, 2011). Commonly physicans refer individuals diagnosed with lateral epicondylitis to an occupational therapist to decrease pain, improve, restore, and regain functionality and range of motion in the elbow. Currently, there is no clear understanding on the etiology of lateral epicondylitis or what is the most effective form of treatment. Occupational therapists commonly use splinting, pain management modalities, in the treatment of clients with this diagnosis (Fedorchyk, 2011). There is a lack valid and reliable literature which provides evidence on which form of treatment is most effective in treating lateral epicondylitis. Occupational therapists commonly use a preparatory method can benefit treatment and function in the forearm. This study researched focused on the effects cardiovascular activity used as a preparatory activity prior to therapy versus clients that engage in cardio vascular exercise as a preparatory activity prior to therapy versus clients who engage in basic preparatory therapy interventions.

Dr. Ronald E. McNair

October 21, 1950 - January 28, 1986

Ronald Erwin McNair, was born on October 21, 1950, in Lake City, South Carolina to Carl and Pearl McNair. He attended North Carolina A&T State University in Greensboro, where, in 1971, he graduated magna cum laude with a BS degree in physics. In 1976 he earned his Ph.D. degree in physics from the Massachusetts Institute of Technology.

Dr. McNair’s many distinctions include: Presidential Scholar (1967-71), Ford Foundation Fellow (1971-74), and National Fellowship Fund Fellow (1974-75). He was also named Omega Psi Phi Scholar of the Year (1975), was honored as the Distinguished National Scholar by the National Society of Black Engineers (1979), and received the Friends of the Flight Award (1981).

Ronald E. McNair was nationally recognized for his work in the field of laser physics. In 1978, he was one of 35 applicants selected from a pool of ten thousand for NASA's space shuttle program and assigned as a mission specialist aboard the 1984 flight of the shuttle Challenger. On his first space shuttle mission in February 1984, McNair orbited the earth 122 times aboard Challenger. He was the second African American to fly in space.

In addition to his academic achievements, he received three honorary doctorates and numerous fellowships and commendations. He was also a member of the National Academy of Engineering and the National Academy of Sciences.

Ronald E. McNair Tribute

Worlds of words cannot capture and describe the honor it is to be part of the Ronald McNair Post-Baccalaureate Achievement Program, named for a monument of a man who achieved what only most can dream - to set sight upon the stars ... and to depart this mysterious journey to become one as bright: a beacon in the night shining for Eternity.

Ronald McNair was a son of the world - an American - a child of the past, present, and future - a beacon of change - a future ready to be reached - a future ready to be changed - a future ready to be found.

Challenger, then, is our name. To challenge and trailblaze toward unknown horizons with pieces of dreams our guide. It is Pride ... a key component of the whole.

To be so full of Life, Hope, and Promise for tomorrow ... these are the moments our finest leaders show us ... and then depart, leaving an added component to guide us. Embracing and surprising.

Us ... to us.

Words come and go and take flight upon the winds that blow. A glorious, unrelenting wind called Challenger ... blows through North Dakota.

We can fly ... and become stars ... after all.

(Diane Skowronski) McNair Alumni

Ronald E. McNair
Cultural Competence Social Work Practice: What is Needed in Working with Native Americans

Mentor: Birgit Hans, Ph.D., (Anthropology) from Indiana University. His publications deal with issues from buffalo history, livestock herding, and the representation of historical and contemporary realities.

Rachel Hill

Mentor: Sebastian Felix Braun, Ph.D., an anthropologist, and Associate Professor and Chair of American Indian Studies at the University of North Dakota. His research focuses on American Indian gaming, American Indian land rights and the contemporary consequences of American Indian Policy on American Indian tribes. In 2012 I made the College of Arts & Sciences Dean List at the University of North Dakota. I am a current recipient of the Mille Lacs Band of Ojibwe Higher Education Scholarship Fund and, most recently have been awarded the 2013-2014 Graduate Opportunity Fellowship from the University of California, Los Angeles. I look forward to working with my faculty advisors: Duane Champagne, Ph.D. of the Sociology Department at the University of North Dakota and Angela Riley, B.A.J.D. of the University of California, Los Angeles.

McNair has given me the confidence and support that has allowed me to embrace my research interests. This program has asked me in the advancement of my professional and research goals. McNair has encouraged me to follow in deepest interests in American Indian and Native American Studies and federal Indian law, while providing a realistic model of how to get there.

Mentor: Sebastian Felix Braun, Ph.D., is an anthropologist, and Associate Professor and Chair of American Indian Studies at the University of North Dakota. His research focuses on American Indian gaming, American Indian land rights and the contemporary consequences of American Indian Policy on American Indian tribes. In 2012 I made the College of Arts & Sciences Dean List at the University of North Dakota. I am a current recipient of the Mille Lacs Band of Ojibwe Higher Education Scholarship Fund and, most recently have been awarded the 2013-2014 Graduate Opportunity Fellowship from the University of California, Los Angeles. I look forward to working with my faculty advisors: Duane Champagne, Ph.D. of the Sociology Department at the University of North Dakota and Angela Riley, B.A.J.D. of the University of California, Los Angeles.

McNair has given me the confidence and support that has allowed me to embrace my research interests. This program has asked me in the advancement of my professional and research goals. McNair has encouraged me to follow in deepest interests in American Indian and Native American Studies and federal Indian law, while providing a realistic model of how to get there.

Mentor: Sebastian Felix Braun, Ph.D., is an anthropologist, and Associate Professor and Chair of American Indian Studies at the University of North Dakota. His research focuses on American Indian gaming, American Indian land rights and the contemporary consequences of American Indian Policy on American Indian tribes. In 2012 I made the College of Arts & Sciences Dean List at the University of North Dakota. I am a current recipient of the Mille Lacs Band of Ojibwe Higher Education Scholarship Fund and, most recently have been awarded the 2013-2014 Graduate Opportunity Fellowship from the University of California, Los Angeles. I look forward to working with my faculty advisors: Duane Champagne, Ph.D. of the Sociology Department at the University of North Dakota and Angela Riley, B.A.J.D. of the University of California, Los Angeles.

McNair has given me the confidence and support that has allowed me to embrace my research interests. This program has asked me in the advancement of my professional and research goals. McNair has encouraged me to follow in deepest interests in American Indian and Native American Studies and federal Indian law, while providing a realistic model of how to get there.

Mentor: Sebastian Felix Braun, Ph.D., is an anthropologist, and Associate Professor and Chair of American Indian Studies at the University of North Dakota. His research focuses on American Indian gaming, American Indian land rights and the contemporary consequences of American Indian Policy on American Indian tribes. In 2012 I made the College of Arts & Sciences Dean List at the University of North Dakota. I am a current recipient of the Mille Lacs Band of Ojibwe Higher Education Scholarship Fund and, most recently have been awarded the 2013-2014 Graduate Opportunity Fellowship from the University of California, Los Angeles. I look forward to working with my faculty advisors: Duane Champagne, Ph.D. of the Sociology Department at the University of North Dakota and Angela Riley, B.A.J.D. of the University of California, Los Angeles.

McNair has given me the confidence and support that has allowed me to embrace my research interests. This program has asked me in the advancement of my professional and research goals. McNair has encouraged me to follow in deepest interests in American Indian and Native American Studies and federal Indian law, while providing a realistic model of how to get there.
Hello, my name is Garrett Jepsen, and I am a current student at the University of North Dakota. I graduated high school in spring of 2008 and came to the University of North Dakota (UND), graduated from the University of Kansas in 2010. He also has been able to work with graduates of that program in undergraduates who have been involved in TRIO, including those students in the Roland River Valley blizzards as severe winter storms.

For Dr. Atkinson, his current project and personal “thrill of research” focuses on Red River Valley blizzards as severe winter storms.

Garrett Jespen
Reptiles and Scenic Geysus of the Sunda Megathrust

Garrett Jespen
Reptiles and Scenic Geysus of the Sunda Megathrust

Mentor: Dr. Douglas C. Munski, Ph.D., joined the faculty of the Department of Geography at the University of North Dakota (UND), graduated from the University of Kansas in 2010. He also has been able to work with graduates of that program in undergraduates who have been involved in TRIO, including those students in the Roland River Valley blizzards as severe winter storms.

For Dr. Atkinson, his current project and personal “thrill of research” focuses on Red River Valley blizzards as severe winter storms.

Mentor: Dr. Douglas C. Munski, Ph.D., joined the faculty of the Department of Geography at the University of North Dakota (UND), graduated from the University of Kansas in 2010. He also has been able to work with graduates of that program in undergraduates who have been involved in TRIO, including those students in the Roland River Valley blizzards as severe winter storms.

For Dr. Atkinson, his current project and personal “thrill of research” focuses on Red River Valley blizzards as severe winter storms.

Mentor: Dr. Douglas C. Munski, Ph.D., joined the faculty of the Department of Geography at the University of North Dakota (UND), graduated from the University of Kansas in 2010. He also has been able to work with graduates of that program in undergraduates who have been involved in TRIO, including those students in the Roland River Valley blizzards as severe winter storms.

For Dr. Atkinson, his current project and personal “thrill of research” focuses on Red River Valley blizzards as severe winter storms.

Mentor: Dr. Douglas C. Munski, Ph.D., joined the faculty of the Department of Geography at the University of North Dakota (UND), graduated from the University of Kansas in 2010. He also has been able to work with graduates of that program in undergraduates who have been involved in TRIO, including those students in the Roland River Valley blizzards as severe winter storms.

For Dr. Atkinson, his current project and personal “thrill of research” focuses on Red River Valley blizzards as severe winter storms.

Mentor: Dr. Douglas C. Munski, Ph.D., joined the faculty of the Department of Geography at the University of North Dakota (UND), graduated from the University of Kansas in 2010. He also has been able to work with graduates of that program in undergraduates who have been involved in TRIO, including those students in the Roland River Valley blizzards as severe winter storms.

For Dr. Atkinson, his current project and personal “thrill of research” focuses on Red River Valley blizzards as severe winter storms.

Mentor: Dr. Douglas C. Munski, Ph.D., joined the faculty of the Department of Geography at the University of North Dakota (UND), graduated from the University of Kansas in 2010. He also has been able to work with graduates of that program in undergraduates who have been involved in TRIO, including those students in the Roland River Valley blizzards as severe winter storms.

For Dr. Atkinson, his current project and personal “thrill of research” focuses on Red River Valley blizzards as severe winter storms.

Mentor: Dr. Douglas C. Munski, Ph.D., joined the faculty of the Department of Geography at the University of North Dakota (UND), graduated from the University of Kansas in 2010. He also has been able to work with graduates of that program in undergraduates who have been involved in TRIO, including those students in the Roland River Valley blizzards as severe winter storms.

For Dr. Atkinson, his current project and personal “thrill of research” focuses on Red River Valley blizzards as severe winter storms.

Mentor: Dr. Douglas C. Munski, Ph.D., joined the faculty of the Department of Geography at the University of North Dakota (UND), graduated from the University of Kansas in 2010. He also has been able to work with graduates of that program in undergraduates who have been involved in TRIO, including those students in the Roland River Valley blizzards as severe winter storms.

For Dr. Atkinson, his current project and personal “thrill of research” focuses on Red River Valley blizzards as severe winter storms.

Mentor: Dr. Douglas C. Munski, Ph.D., joined the faculty of the Department of Geography at the University of North Dakota (UND), graduated from the University of Kansas in 2010. He also has been able to work with graduates of that program in undergraduates who have been involved in TRIO, including those students in the Roland River Valley blizzards as severe winter storms.

For Dr. Atkinson, his current project and personal “thrill of research” focuses on Red River Valley blizzards as severe winter storms.

Mentor: Dr. Douglas C. Munski, Ph.D., joined the faculty of the Department of Geography at the University of North Dakota (UND), graduated from the University of Kansas in 2010. He also has been able to work with graduates of that program in undergraduates who have been involved in TRIO, including those students in the Roland River Valley blizzards as severe winter storms.

For Dr. Atkinson, his current project and personal “thrill of research” focuses on Red River Valley blizzards as severe winter storms.
Hello, my name is Melissa Gibson and I am from St. Paul, Minnesota. I chose to attend the University of North Dakota in the fall of 2008 to study Atmospheric Science. After I realized my interests lied elsewhere, I switched my major to Anthropology. I will be graduating in the spring of 2013 with a degree in Anthropology and a minor in Atmospheric Science. After taking some time off to refocus, I am planning on attending graduate school to obtain a Ph.D. in Biological Anthropology with an emphasis in Forensic Anthropology. My long term goals are to work as a Forensic Anthropologist in a crime lab, perform research and one day become a professor at a university.

Mentor: Associate Professor Dr. Phoebe R. Stubblefield
Graduation date: May 2013

Abstract
In forensic anthropology metric analyses are an important tool to use when determining the biological profile of human remains. They can provide various information including sex, ancestry, and stature. Multiple instruments are used in collecting data for analysis including but not limited to, the spreading caliper, the sliding caliper and the osteometric board. A few programs have been created to aid in these calculations. FORDISC, created by Richard Jantz and Stephen Ousley, is one of the more widely used programs. FORDISC is not error proof and therefore the results should not be the only data used. Metric analyses should always be used in conjunction with the most important tool in forensic anthropology, visual examination. After combining visual examination and metric analysis, a more detailed biological profile can be created.

Hello, my name is Andy Erickson and I am a senior in computer science at the University of North Dakota. I graduated from high school in 2001 from Roseau, Minnesota, and moved to Grand Forks in the fall of 2009. I have always been fascinated by computers and electronics and I am currently researching topics on artificial intelligence. My plans are to finish my bachelors in computer science from UND in the spring of 2014 with a minor in mathematics and then enroll in graduate school that same fall. After obtaining my Ph.D., I plan to conduct research on navigation systems for robotics and contribute to the field of self-driving cars.

Mentor: Tom Stokke
Graduation date: May 2014

Abstract
In 2005 Dr. Sebastian Thrun, of Stanford University, demonstrated that a fully autonomous vehicle was possible by programming a car to maneuver its way across 142 miles of desert terrain. In doing so Dr. Thrun’s team won the DARPA Grand Challenge and forever changed automotive history. Their vehicle, Stanley as it was named, was the forerunner of what would become self-driving cars. This technology allows a vehicle to be given coordinates via GPS and then autonomously maneuver its way through city traffic and pedestrians to arrive at its destination. This technology has proven to be incredibly safe and could potentially save tens of thousands of lives in the United States alone every year. Also for individuals who have lost their ability to drive, this technology has the capability of giving them back their independence and freedom to commute whenever and wherever they wish. While there is still more work that has to be done to refine the technology, there also needs to be a change in the biased views people have against technology. Even though self-driving cars have the ability to change the world, handing over control of a vehicle to a computer will not be an easy concept for many to accept.
Hello, my name is Karen Borgen, I am an undergraduate student pursuing a degree in social work and a certificate in nonprofit leadership at the University of North Dakota. I grew up near Aneta, ND, and received an A.S. degree in Commercial Art from Bismarck State College in 1992. I have a 19-year-old son, Dylan, and a daughter, Ali, who was 14 when she died in 2011 after a four-year battle with leukemia.

The incidence of pediatric cancers has increased 29 percent in the past 20 years. Childhood cancer now occurs in one in 300 children, with an average of 36 American children diagnosed each day (NCI, 2004). This is the beginning of an ongoing research study that will include a literature review, field research, and analysis of qualitative data. The study will examine the impact of childhood cancer on families in the community, and evaluate the current resources and support available to families affected by childhood cancer. This study will be completed in the fall of 2014.

The purpose of this study is to understand the impact of childhood cancer on families in the community, and to evaluate the current resources and support available to families affected by childhood cancer. The study will be conducted through a qualitative research design, and will include interviews with parents of cancer children, and examining current local resources for families affected by childhood cancer. This is an ongoing research study that will include a literature review, field research, and analysis of qualitative data. The study will examine the impact of childhood cancer on families in the community, and evaluate the current resources and support available to families affected by childhood cancer. This study will be completed in the fall of 2014.

The impact of childhood cancer on families in the community has been extensively studied, with research indicating that families experience a range of psychological, emotional, and social effects. These challenges can be exacerbated by the financial burden of medical care, social isolation, and stigma associated with childhood cancer. This study aims to provide a comprehensive understanding of the impact of childhood cancer on families in the community, and to identify potential areas for intervention and support. The study will be conducted through a qualitative research design, and will include interviews with parents of cancer children, and examining current local resources for families affected by childhood cancer. This is an ongoing research study that will include a literature review, field research, and analysis of qualitative data. The study will examine the impact of childhood cancer on families in the community, and evaluate the current resources and support available to families affected by childhood cancer. This study will be completed in the fall of 2014.

The purpose of this study is to understand the impact of childhood cancer on families in the community, and to evaluate the current resources and support available to families affected by childhood cancer. The study will be conducted through a qualitative research design, and will include interviews with parents of cancer children, and examining current local resources for families affected by childhood cancer. This study will be completed in the fall of 2014.
Nichole Nelson

"Do What I Want Done Substance Abuse Affect Placement of Children in Foster Care in Native American Families Who Participate in Family Group Conferences?"

Mentor: Dr. Melanie Sage
Graduation date: August 2013

Abstract

Native American children are overrepresented in foster care in North Dakota. Family group conferencing is an intervention in which family members and professionals come together to explore for alternatives to placement in stranger foster care. This secondary data analysis of 40 North Dakota Native American families who have participated in Family Group Conferencing examines intervention outcomes for the families, children, and parents. The following research questions were investigated: To what extent does substance abuse contribute to placement of families in foster care in North Dakota? How do families who have participated in Family Group Decision Making Program that serves Native American families, and are now serving as foster parents, compare in terms of substance abuse problems, and to what extent substance abuse is associated with the placement recommended at the family group conference. The data suggests that parental substance abuse involvement plays a significant role in the placement of Native American children for this sample, as well as in the subsequent placement recommendations. Implications are discussed.

Hello, my name is Nichole Nelson. I am currently a senior at UND majoring in Social Work and am now in my last year. After graduation I plan on entering the Masters in Social Work program. I am also preparing to apply for the North Dakota State Addiction Licensing Program. My goal is to work in a clinical setting, particularly with addiction and mental health. I also plan on serving Native Americans.

Shelley Davis

Observational Light Curves of Two Transiting Extra-Solar Planets, Qatar-1 and WASP-33

Mentor: Dr. Timothy Young
Graduation date: May 2015

Abstract

We present observational data of two transiting extra-solar planets, Qatar-1 and WASP-33. The data was collected with the CRUST (Crookston - UND Search Telescope) 16 inch Schmidt-Cassegrain telescope during the summer and fall of 2012. We used a database of confirmed extra-solar transiting planets to select a transit period for each. We observed each transit at least twice, once before and once after the peak of transit for each transit. The discovery of the transiting planets is conducted by other groups with telescope programs in very dark locations. We picked confirmed transiting planets that had optimal parameters to observe a transit with the CRUST telescope. This included a transit period that occurred during one night of observations, had a large decrease in the light during the transit, and had a parent star that was bright. The data was reduced with several software packages, including MaxDM. A technique of binning the data was required to sufficiently decrease a transit light curve for analysis. The resulting light curves confirmed that small telescopes in urban skies can detect extra-solar transiting planets.

Hello my name is Shelley Davis. I am from New Town, ND. I returned to school in the fall of 2010 and spent some time figuring out what I wanted to do when I grew up and finally decided on majoring in Physics with an emphasis in the astrophysics area. I am currently working on research on extrasolar planets with my mentors, Dr. Tim Young and Dr. Geza Kovacs. I will be graduating in May 2015 with a bachelor’s degree in physics and plan to continue on a pursuit of a doctorate in physics.

Mentor: Timothy R. Young, PhD., is an associate professor in physics and astrophysics and director of the Forest River Observatory at UND. He received his Physics PhD in 1994 from the University of Oklahoma and three B.S. degrees, Physics, Math and Astronomy in 1985 from the University of Wisconsin-Madison. He had several postdoctoral positions, most notably an NSF-IRPS postdoctoral fellowship working at the University of Tokyo, Japan from 1995-1998. The two other postdocs were at Wichita State University (1994-1995) and University of Arizona (1992-1994). Current research involves observations of extra-solar systems and supernovae explosions. In 2010 the NASA CHANDRA x-ray satellite found evidence for a black hole predicted by Dr. Young and his graduate students in 2005. Recently he has been involved with observations of extrasolar transiting planets using the CRUST telescope. He also does research in physics and astronomy education and is part of the North Dakota STEM network. In 2004 he started and continues to do live web casting of eclipses and transits around the world. In 2009, he and collaborators started several professional development and curriculum projects involving Native Science and Western Science in planetarium dome programs.

Mentor: Geza Kovacs, Ph.D., is a Professor and Oliver L. Benediktson Chair in Astrophysics at UNDs-Meadag School of Natural Sciences. He received his Ph.D. degree in astronomy from Eotvos Lorand University, Budapest, in 1981. The title of his dissertation was "The Fourier Analysis and Its Application in the Research of Variable Stars". Dr. Kovacs received the D.Sc. title from the Hungarian Academy of Sciences in 1995. His main fields of research include: Extrasolar planets; transit search strategy, nonlinear stellar pulsations; numerical modeling, empirical relations.
Hello, my name is Leslie Yellow Hammer. I am a junior working towards obtaining my Bachelor's of Science in Biology. I first started my college career by obtaining my Associate's in Nanoscience technology. With this degree and lab experience, I knew I wanted to learn more and one day contribute to my own research. McNair has provided the support and opportunities I need to succeed in graduate school to obtain this objective. Conducting research in the Grassland Ecology lab has added a new dimension to my life in a meaningful and positive way. For that, I am very grateful. Dr. Sauer referenced me to the McNair program in the fall of 2011. I have worked on projects varying from my thesis to her extensive knowledge within the realm of anchoritic texts and beyond has expanded my scope of knowledge. I am excited and proud to share my research results today and build on them tomorrow.

Mentor: Kathryn Yurkonis, Ph.D, is an assistant professor in the Department of Biology at the University of North Dakota. She received her Ph.D. in Ecology and Evolutionary Biology from Iowa State University in 2010, her M.S. in Biological Sciences from Eastern Illinois University in 2005, and her B.S. in Biology and Environmental Sciences from Carroll University in 2003. Her research expertise is in grassland plant community ecology and she has additional interests in invasive species ecology and grassland restoration ecology. She joined the faculty in the biology department in fall 2010 after working as a post-doctoral fellow at the University of California, Santa Barbara. Dr. Yurkonis' research focuses on the plant species pattern and fungal endophytes on grassland biodiversity.
Graduate Scholarly Forum