

# Rachel A. Knapp

184 UCB University Libraries, University of Colorado, Boulder, CO 80309-0184

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## **Education**

- **Masters of Forestry. 2014.** University of New Hampshire, Durham, NH  
Thesis Title: A comparison of absolute and relative stand density measures used in the northeastern U.S.  
(<https://scholars.unh.edu/cgi/viewcontent.cgi?article=1989&context=thesis>)
- **Masters of Library and Information Science. 2007.** Simmons College, Boston, MA
- **Bachelor of Arts in English, Minor in Chemistry. 2000.** Carnegie Mellon University, Pittsburgh, PA

## **Professional Experience**

### **Applied Sciences Librarian**

*University of Colorado*

**November 2019 to Present**

*Boulder, CO*

- Provide research support; eg. meeting with students and faculty to give literature research guidance, locating technical standards, assisting with patent research and creating online research guides
- Develop strong working relationships with engineering departments in order to identify opportunities to provide library services and resources through events and instruction; attend department meetings
- Offer workshops in a variety of topics including: How to read a scientific paper, How to search for patents, How to conduct a literature review, and How to get start on data management
- Conduct research in my areas of interest which includes exploring the information needs and consumption habits of engineering students and professional engineers and also exploring ways of using patents in the classroom as a means of teaching information literacy and critical thinking skills.
- Teach research skills to a variety of courses and lab groups; lectures, supporting materials, in-class exercises and assignments are tailored to each discipline or course.

### **Science, Engineering, Patent and Trademark Reference Librarian**

*University of Maine*

**Feb 2017 to October 2019**

*Orono, ME*

- Provided research support and information literacy instruction to students and faculty in STEM
- Taught research skills and develop research guides in support of 9 disciplines and 1 specialty area
- Patent and Trademark Resource Center Librarian for Maine providing consultations and training
- Created class specific lectures, supporting materials and assignments for dozens of courses
- Worked jointly with faculty to integrate and assess the use of information literacy
- Collaborated with colleagues and departments across campus to provide superior customer service
- Conducted Patent and Trademark Research, Citation Management and Retraction Watch workshops

### **US Forest Service Research Data and Archive Manager**

*Penobscot Experimental Forest, University of Maine*

**Sept 2015 to January 2017**

*Orono, ME*

- Maintained research database for nearly a dozen independent forestry and ecology studies
- Wrote 36-page Data Manager Handbook detailing best practices and standard operating procedures
- Resolved historical data inaccuracies and metadata issues; Wrote and maintained formal metadata
- Prepared data for online publication through the USDA Forest Service Research Data Network
- Created data collection forms, managed data entry, conducted quality control on data
- Analyzed data using R code to prepare data summaries for faculty, students and outside researchers

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## **Engineering Verification Test Manager**

*DEKA Research & Development Corporation*

**March 2013 to August 2015**

*Manchester, NH*

- Worked with research team to develop and perfect medical device
- Provided data analysis, test results summaries and technician feedback to development engineers
- Coordinated and ensured proper execution and documentation of test requests
- Managed a half dozen test technicians, a suite of 100 engineering tests and a microbalance lab

## **Quality Assurance Technician**

*Nanocomp Technologies, Inc.*

**Feb 2011 to October 2012**

*Concord, NH*

- Measured mechanical, electrical and chemical properties of carbon nanotube materials
- Managed data records; performed data mining and provide data analysis and graphical output
- Maintained operation of test equipment
- Analyzed test methods and compared instrument measurements.
- Created new procedure documentation and update existing procedure
- Conducted internal process and quality system audits

## **Graduate Research Assistant (Forestry)**

*University of New Hampshire*

**Nov 2007 to December 2011**

*Durham, NH*

- Developed a forest stand relative density equation for the northeast United States
- Compared equation to similar equations using standard and novel statistical comparison techniques
- Taught several *Forest Measurement and Analysis* lectures and a lab as well as completed grading
- Conducted two 6-week long research trips to Smithers, British Columbia

## **Reference Librarian**

*New Hampshire Technical Institute Library*

**Jun 2006 to December 2007**

*Concord, NH*

- Developed library instructional programs
- Provided instruction to students, faculty, staff and the general public in the use of library resources
- Compiled and maintain research guides in several dozen subject areas
- Supervised interns and library clerks on projects

## **Assistant Reference Librarian**

*Portsmouth Public Library*

**Mar 2005 to February 2006**

*Portsmouth, NH*

- Provided reference assistance, as well as computer, printer and copier assistance
- Educated patrons on the use of the online catalog and various electronic and print resources
- Helped maintain journal collection and participated in entering local historical data into our database

## **Profiling Bibliographer**

*YBP Library Services*

**Mar 2003 to February 2005**

*Contoocook, NH*

- Created detailed electronic record of approximately 150 books per week
- Provided collection development services for academic and public libraries
- Worked closely book buyers, sales team and customer service

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**Mechanical Engineering Graduate Program Coordinator**

University of Colorado

**Aug 2001 to December 2002**

Boulder, CO

- Advised over 100 graduate students on department and university requirements, deadlines, and rules
- Acted as primary contact for prospective students and applicants
- Set-up student visits, answered Visa questions, organized and conducted new student orientation
- Developed and maintained several databases in Filemaker Pro and Excel

## **Publications**

Borrego, Paulina and **Knapp, Rachel** (2020) "Broadening the patent experience: the value of PIUG and attending the Patent Information Users Group (PIUG) Annual Conference," *Journal of the Patent and Trademark Resource Center Association*: Vol. 30 , Article 4.

Available at: <https://tigerprints.clemson.edu/jptrca/vol30/iss1/4>

**Knapp, Rachel A.** "Adventures in Conference Planning – University of Maine PTRC Celebrates 25 Years," *Journal of the Patent and Trademark Resource Center Association*: Vol 29 (2) 2019.

<https://tigerprints.clemson.edu/jptrca/vol29/iss1/2> Last accessed on 4/30/2019

Liu, Grace and **R. A. Knapp**. "Engaging in Our Customers' Experience: Lessons Learned from Attending Entrepreneurial Events." *Academic BRASS*. Vol 13 (2) Fall 2018.

[http://www.ala.org/rusa/sites/ala.org.rusa/files/content/sections/brass/Publications/Acad BRASS/2018\\_fall Liu K napp.pdf](http://www.ala.org/rusa/sites/ala.org.rusa/files/content/sections/brass/Publications/Acad_BRASS/2018_fall_Liu_Knapp.pdf) Last accessed on 4/30/2019

**Knapp, Rachel A.** "Science Boot Camp for Librarians – Blog Post 5." NNLM New England Blog, National Network of Libraries of Medicine), August 7, 2018,

[news.nlm.gov/ner/2018/08/07/science-boot-camp-for-librarians-blog-post-5/](https://news.nlm.gov/ner/2018/08/07/science-boot-camp-for-librarians-blog-post-5/)

Leak, William B.; Yamasaki, Mariko; Belair, Ethan P.; **Knapp, Rachel A.**; Brissette, John C. 2017. Bartlett Experimental Forest permanent cruise plot data. Fort Collins, CO: Forest Service Research Data Archive.

[doi:10.2737/RDS-2017-0036](https://doi.org/10.2737/RDS-2017-0036).

Kenefic, Laura S.; **Knapp, Rachel A.**; Waskiewicz, Justin D.; Wilson, Jeremy S. 2016. Overstory and regeneration data from the "Rehabilitation of cutover mixedwood stands" study at the Penobscot Experimental Forest. Fort Collins, CO: Forest Service Research Data Archive. Updated 13 January 2017. [doi: 10.2737/RDS-2016-0024](https://doi.org/10.2737/RDS-2016-0024).

**Knapp, Rachel A.**; Kenefic, Laura S.; Weiskittel, Aaron. "Silvicultural Effects on Composition and Structure of Northern Conifers in the Acadian Forest Region: The Compartment Management Study in Maine, USA." From: Pontius, J., Schaberg P. and J. Duncan (Eds.) 2017. Proceedings of the 8th Eastern CANUSA Forest Science Conference: Understanding and Managing ECANUSA Forests in a Changing Environment. September 30 - October 1, 2016. Burlington, VT. Forest Ecosystem Monitoring Cooperative. [doi:10.18125/D2MW2X](https://doi.org/10.18125/D2MW2X)

**Knapp, R.A.** 2014. A comparison of absolute and relative stand density measures used in the northeastern United States. <http://search.proquest.com/docview/1654999130>

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Ducey, Mark J. and **Rachel A. Knapp**. 2010. A stand density index for complex mixed species forests in the northeastern United States. *Forest Ecology and Management*. 260(9). 1613:1622.

M. J. Ducey and **R. A. Knapp**, "Rapid Assessment of Relative Density in Mixed-Species Stands of the Northeastern United States," *International Journal of Forestry Research*, vol. 2010, Article ID 212068, 8 pages, 2010.  
[doi:10.1155/2010/212068](https://doi.org/10.1155/2010/212068).

**Knapp, R.A.** and M.J. Ducey. "A cost effective and efficient way to assess trail conditions: A new sampling approach." From Weber, Samantha, ed. 2010. *Rethinking Protected Areas in a Changing World: Proceedings of the 2009 GWS Biennial Conference on Parks, Protected Areas, and Cultural Sites*. Hancock, Michigan: The George Wright Society. 213:218.

## ***Presentations***

From Donut Holes to Earmuffs: A (Quirky) History of Inventions from Maine  
5th Annual Maine Science Festival, Bangor, Maine  
March 16, 2019

Where to Find Help with Patent and Trademark Questions  
10th Annual Maine Academic Libraries Day, Colby College, Waterville, Maine  
May 31, 2018

Silvicultural Effects on Composition and Structure of Northern Conifers in the Acadian Forest Region: The Compartment Management Study in Maine, USA  
8th Eastern CANUSA Forest Science Conference: Understanding and Managing ECANUSA Forests in a Changing Environment, Burlington, Vermont  
September 30 - October 1, 2016

A Comparison of four Northeastern United States relative density measures using rater agreement analysis  
Northeastern Mensurationists Organization (NEMO) Conference, Stowe, Vermont  
November 15-17, 2015

Developing a Relative Density Measure for Mixed Species Stands of the Northeastern United States  
Digital poster presented at the New England Society of American Foresters Winter Meeting  
March 9, 2010

Utilizing Quantile Regression to Develop a Stand Density Index for Mixed-species Stands from FIA Data  
Northeast Mensurationists Organization (NEMO) Conference, Durham, New Hampshire  
November 3, 2009

Utilizing Quantile Regression to Develop a Stand Density Index for Mixed-species Stands from FIA Data  
North American Forest Ecology Workshop (NAFEW), Logan Utah  
June 22-26, 2009

A cost effective and efficient way to assess trail conditions: A new sampling approach  
George Wright Society Conference, Portland, Oregon  
March 2-6, 2009

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## ***Conferences Attended***

American Society of Engineering Educators (ASEE) Annual Conference  
Virtual, June 22-26, 2020

New England Chapter, ACRL, Annual Meeting: Designing Student-Centered Learning Experiences  
New England Institute of Technology, East Greenwich, RI, June 21, 2019

10th Annual Maine Academic Libraries Day  
Colby College, Waterville, Maine, June 12, 2019

11th Annual New England Science Bootcamp. Topics included: Assistive Technologies, Social Justice in Science and Remote Sensing  
University of New Hampshire, Durham, New Hampshire, June 5-7, 2019

Patent and Information User Group Annual Conference: Preparing for the Future and the Unknown: New Technologies and Skills for the Patent Searcher  
Alexandria, Virginia, May 4-9, 2019

41st Annual Patent and Trademark Resource Center Conference  
Alexandria, Virginia, April 8-11, 2019

Engaging with the ACRL Framework: A Catalyst for Exploring and Expanding Our Teaching Practices  
University of Southern Maine, Portland, Maine, March 18, 2019

Small Business Association SBIR/STTR Road Tour  
Portland, Maine, August 24, 2018

10th Annual New England Science Bootcamp: Genetic Counseling, Ecology and Materials Science  
Brandeis University, Waltham, Massachusetts, June 12-15, 2018

University System of Maine Faculty Institute Conference  
University of Augusta, Maine, May 17, 2018

Association of College and Research Libraries (ACRL) Scholarly Communications Roadshow: Scholarly Communication From Understanding to Engagement  
Bates College, Lewiston, Maine, May 11, 2018

40th Annual Patent and Trademark Resource Center Conference  
Alexandria, Virginia, April 9-13, 2018

9th Annual Maine Academic Libraries Day  
Colby College, Waterville, Maine, June 15, 2017

39th Annual Patent and Trademark Resource Center Conference  
Alexandria, Virginia, April 3-6, 2018

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University of Maine Academic Advising Conference  
Orono, Maine, October 19, 2017

Conference of the Northeastern Ecosystem Research Cooperative (NERC)  
Durham, New Hampshire, November 12-13, 2008

## **Grants**

**Knapp, R.** and (2020). "The Fund for Library Innovation, Service & Entrepreneurship: Gemmill Library Book Drop." University Libraries, University of Colorado Boulder, \$1,500. [Submitted January 2020, Funded February 2020]

Buljung, B., **Knapp, R.**, Seiffert, A., Cantrell, M.H., and Welcome, L. (2020). "Open Mini-Course: Promoting and Implementing inclusivity in the STEM classroom." Colorado Department of Education, Colorado Open Educational Resources (OER) Grant 2020-21, Individual/Small Group Grant, \$9,500. [Submitted December 2020, Funding decision pending]

## **Honors and Awards**

2019 Brian Stockdale Award; awarded by the Patent Information User Group (PIUG), Technology & Patent Research International, and Clarivate Analytics

2018 New England Science Boot Camp Scholarship; awarded by the New England Science Boot Camp for Librarians Planning Committee

2018 HSLIC Professional Development Scholarship; awarded by the Maine Health Science Libraries and Information Consortium

2010 Graduate Student Scholarship from the New England Society of American Foresters

2009 Farrington Fund Travel Grant to present "A Cost Effective and Efficient Way to Assess Trail Conditions: A New Sampling Approach" at the George Wright Forum in Portland, Oregon

2009 Award for Best Student Presentation in my category at the North American Forest Ecology Workshop at Utah State University in Logan, Utah

## **Social Media**

Harrison, Judy. "Young inventor hopes to join growing list of patent holders from Maine." Bangor Daily News online, March 17, 2019,

<https://bangordailynews.com/2019/03/17/news/bangor/young-inventor-hopes-to-join-growing-list-of-patent-holders-from-maine/>. Accessed 01 February 2020.

## **Service**

University of Colorado, College of Engineering and Applied Sciences 3rd Annual Ring and Pin Ceremony Volunteer, 2020

University of Colorado, Boulder, Norlin Scholars Program, Volunteer scholarship application reviewer, 2020

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Association of College and Research Libraries (ACRL) External Liaison Committee  
Member, 2020-present

University of Maine Raymond H. Fogler Library Advisory Council  
Elected Professional Employee Representative, 2017-2019

University of Maine Professional Employee Advisory Council  
Member, 2018-2019

Conference on Patents and Trademarks, University of Maine, Orono, October 16-17, 2018  
Organizer and Host

Information Literacy Working Group  
Member, 2017-2018

Maine Business, Science, and Technology Library Working Group  
Outreach Coordinator, 2017-2019

## ***Professional Association Memberships***

American Library Association (ALA), 2019-Present  
Association of College and Research Libraries (ACRL), 2019-Present  
Patent and Trademark Resource Center Association (PTRCA), 2017-2019  
Patent Information User Group (PIUG), 2019

## ***Professional Training***

Faculty Mentoring Program, University of Colorado Boulder Office of Faculty Affairs; Mentored by tenured Professor in the Department of Journalism. September 2020-August 2021

Crucial Conversations Training, University of Colorado Boulder Human Resources. October 12-16, 2020

Fake News, ALA eLearning; Instructor: Megan Mallon. January 2020

Why so few? The Underrepresentation of Women in Technology and Software Development, OCLC Webinar; Presented by Sandy Payette. May 15, 2019

PUBEAST Patent Examiner Database Training; Instructor: Neil Massong. June 5, 2018

Coding in the real world and how we need to teach it, SLJournal Webinar; Presented by Kathy Ishizuka. April 25, 2018

For the Greater (Not) Good (Enough): Open Access and Information Privilege, OCLC Distinguished Speakers Series Webinar; Presented by Char Booth. November 9, 2017

Protecting your online privacy: risks and strategies, InfoPeople Webinar; Presented by Laura Solomon, November 9, 2017

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Getting Started with Social Media for Your Library, WebJunction Webinar; Presented by Amy Hitchner and Jessica Bacon. October 24, 2017

The Great American Solar Eclipse – Government Resources; OCLC Webinar; Presented by Linda Zelmer. July 25, 2017

Gamifying Library Instruction: Using Technology to Make Learning Engaging, North Carolina Library Association Webinar; Presented by Brittany O'Neill. July 7, 2017

Emerging Issues in Copyright: A Jaunt Through Some Common Problems, North Carolina Library Association Webinar; Presented by Justin White. June 21, 2017

Researcher profiles and metrics that matter, Brighttalk Webinar; Presented by Chris Belter, Ellen Cole, and Andrea Michalek. June 8, 2017

High-impact library services & outreach: student success to systematic reviews, Elsevier Library Connect Webinar; Presented by Bill Draper, Donna Gibson, Katy Kavanagh Webb. May 18, 2017

Confronting Misinformation: How librarians can assist patrons in the digital information, Federal Depository Library Program (FDLP) Webinar; Presented by Barbara Alvarez. March 27, 2017