

Benjamin Charles Colteaux, PhD

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Curriculum Vitae

Education

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| 2011 - | Virginia Commonwealth University | Richmond, VA |
| 2017 | Ph.D. Integrative Life Sciences
Derek Johnson Laboratory
Biology Department
G.P.A. – 4.0 | |
| 2012 - | Virginia Commonwealth University | Richmond, VA |
| 2015 | Post-baccalaureate Graduate Certificate in Geographic Information Systems (GIS)
Urban and Regional Studies Department
G.P.A. – 4.0 | |
| 2010 - | University of Louisiana at Lafayette | Lafayette, Louisiana |
| 2011 | Ph.D. Environmental and Evolutionary Ecology
Louisiana Board of Regents Fellow
Derek Johnson Laboratory
Biology Department
G.P.A – 4.0 | |
| 2007 - | Dominican University of California | San Rafael, California |
| 2010 | B.A. Biology with emphasis on Ecology
G.P.A – 3.8, Magna Cum Laude | |

Research Interests

Research and management of wildlife species/populations under hunting/harvest pressure, ecology of and population dynamics within terrestrial and aquatic ecosystems, educational outreach, wildlife conservation and management, apiary science, collaborative networking, spatial ecology, herpetology with emphasis on turtles and tortoises, zoology, mammalogy, entomology, ornithology, predator/prey interactions, habitat selection, large scale population disturbances, forest health and conservation, and dynamics of invasive species.

2018 - Hancock Forest Management/Hancock Natural Resource Group

2020 *Wildlife Biologist*

Responsible for the management of natural resources on roughly 600,000 acres of licensable hunting ground in Texas, Louisiana, and Oklahoma. Managed species included white-tailed deer (*Odocoileus virginianus*), Eastern wild turkey (*Meleagris gallopavo silvestris*), bobwhite quail (*Colinus virginianus*), multiple species of duck (*Anas spp.*) and sensitive plant and animal species including Texas trailing phlox (*Phlox nivalis ssp. texensis*), Texas screwstem (*Bartonia texana*), and the red-cockaded woodpecker (*Leuconotopicus borealis*). Established collaborations with state and federal agencies including Texas Parks and Wildlife Department (TPWD), U.S. Department of Fish and Game, regional universities, forestry associations, and botanical societies to ensure harvested populations are being properly monitored for the long-term health of each species. Established or expanded programs and revenue streams related to apiary leases, wetland mitigation, and other value-added services. Established an outreach program which serviced roughly 1,200 hunters in order to improve hunting quality through education. Responsible for the ongoing design and execution of improvements for www.hancockrecreation.com in order to drive value and increase brand as new products are integrated into the website framework. Responsible for ensuring that all spatial data was kept up-to-date following land sales and license modifications. Worked collaboratively with multiple divisions within Hancock, and outside developers, to ensure that all improvements are made on time and within budgetary parameters. Developed and refined media outreach through advertising and web content in order to increase brand recognition and improve license holder satisfaction. Exceeded recreational income goal by roughly 2 million dollars in the 2019-2020 fiscal period.

2012 - Dr. Derek Johnson, Virginia Commonwealth University, Richmond, VA

2017 *Ph.D. Candidate/Primary Investigator*

Ph.D. research was focused on assessing the sustainability of snapping turtles (*Chelydra serpentina*) under current and increasing commercial harvest pressure within Virginia waterways. Research included mark/recapture of both common snapping turtles and by-catch turtle species in three Virginia waterways representing a range of historic commercial harvest intensity. Telemetry data collected from 23 snapping turtles was used to infer movement patterns, habitat usage, conspecific interactions, and population density. In years two and three nails samples were taken from turtles collected to study mercury loads across size classes of snapping turtles and to examine ontogenetic shifts in feeding through stable isotope analysis. This was a four-year project funded through the Virginia Department of Game and Inland Fisheries. Data from research was published and is available at www.bencolteaux.com.

2008 - Dr. Mietek Kolipinski, Senior Scientist, National Park Service, Pacific West Regional Office, Oakland, CA

2009 *Primary Investigator*

Developed and executed research project cataloguing the bee and wasp species present in Marin County, California. Research involved collecting and preserving bee, wasp and plant samples at 15 sites within Marin County, including sites at the Point Reyes National Seashore and Golden Gate National Recreation Areas. Sampling included both native and non-native bee, wasp and plant samples in an effort to establish a catalogue of species present as well as a cross reference of the plants being pollinated. Field research included collection of specimens by hand, plotting of collection sites, overseeing research assistants and working with local park and wildlife agencies. Laboratory research included preserving and mounting of specimens, species identification using dissecting microscopes, working with local professional botanists and biologists, cataloguing of species data and management of 5 research assistants. Data from research was published in the journal BIOS.

2009 Dr. Lindsay Sullivan, San Francisco State University, San Francisco, CA

Research Assistant

Quantified feeding and growth of larval and juvenile planktivorous fish in the San Francisco Estuary. Research performed at The Romberg-Tiburon Center for Environmental Studies, Tiburon, CA. Duties included weighing and preparing fish samples for combustion analyzer, measuring specimens, collecting and analyzing data, designing poster presentation, recording and analyzing gut contents of fish samples. Research included use of Costeca Elemental Combustion System (Model ECS410, EAS Clarity Software), Sartorius De-Ionizer, Sartorius Micro-Balance (Model SE2), compound and dissecting microscopes.

- 2008 Ecology and Conservation Field Study, Galapagos Islands, Ecuador
Field Researcher
Program focus was to gain first-hand knowledge of plant and animal life indigenous to Galápagos, Ecuador. Personal emphasis was on interaction amongst tortoise species native to the Galapagos Islands including in-depth study of the various shell morphologies and home ranges as well as reproduction habits and human impact on life cycles. Duties included field identifying native and invasive species, setting up and overseeing research groups, collecting, organizing and analyzing data from research groups, and working with local residents and agencies.
- 2007 - Wildcare, Wildlife Rehabilitation Center and Hospital, San Rafael, CA
2008 *Hospital Intern*
Duties included managing volunteer staff, performing intake examinations, dictating treatment and rehabilitation schedules for patients, performing blood and fecal tests, preparing and administering medications for patients, performing minor surgeries including wound treatment and suturing of wounds, taking and processing of x-rays, establishing enrichment protocols, and emergency and disaster, with emphasis on oil spills, examinations and treatments. Patient intake included species from greater Northern California, including but not limited to, pelagic seabirds, raptors, songbirds, geese and ducks, rodents, and mammals ranging from opossums to coyotes to bobcats including rabies vector animals.

Continuing Education and Certifications

- 2020 Penn State University – Beekeeping 101. Grade Earned: A (95%)
- 2020 California Department of Justice – Firearms Safety Certification (PASS)
- 2019 Montevallo Driving School – Safe Driver Certification
- 2019 Red Cross – CPR and First Aid Certified
- 2019 The Wildlife Society - California Environmental Quality Act (CEQA) 101 for Biologists
- 2019 University of Florida – Ecology and Restoration of the Longleaf Pine Ecosystem (FOR5159)
History, structure, function and ecological and economic importance of longleaf pine ecosystems; regeneration ecology, stand developmental dynamics and management, and restoration techniques. Grade Earned: A (96.3%)
- 2018 NRA Hunter Education Course (PASS)

Publications

- 2020 Colteaux, Benjamin C., Signer, Johannes, and Johnson, Derek M.
Snapping Turtle (Chelydra serpentina) Home Range Analysis Within a Lotic Environment: Effects of Sex, Season, and Body Size. (In Prep)
- 2020 Jones, Landon M., Colteaux, Benjamin C., Leberg, Paul, and Duke-Sylvester, Scott M.
A Geometric Estimator to Calculate Triangulations from Radio Telemetry Data. (In Review)
- 2020 Colteaux, Benjamin C., and Johnson, Derek M.
The Status of Snapping Turtles (Chelydra serpentina) in Virginia: Modelling the Effects of Commercial Harvest Regulations on Population Growth Rates in a Turtle Fishery. (In Prep)
- 2017 Colteaux, Benjamin C.
The Status of Snapping Turtles (Chelydra serpentina) in Virginia: Population Viability, Demography, Regulatory Analysis, and Conservation. Doctoral Dissertation, Virginia Commonwealth University, Richmond, VA, USA.

- 2017 Colteaux, Benjamin C., and Johnson, Derek M. *Commercial harvest and export of snapping turtles (*Chelydra serpentina*) in the United States: trends and the efficacy of size limits at reducing harvest*. *Journal for Nature Conservation* 35 (2017): 13-19.
- 2012 Colteaux, Benjamin C., McDonald, Circe, Kolipinski, Mietek, Cunningham, James B., and Ghosh, Sibdas. *Survey of pollinator and plant interactions in meadow and grassland habitats of Marin County, California*. *BIOS*, 84(1):1-7.

Teaching Experience

- 2015 - 2016 Vertebrate Natural History (BIOZ 313), Instructor, Virginia Commonwealth University
- 2014 Teaching Assistant/Guest Lecturer: Environmental Studies Capstone (ENVS 490), Virginia Commonwealth University
- 2014 Guest Lecturer: Herpetology (BIOL 435), Virginia Commonwealth University
- 2013-2014 Guest Lecturer: Vertebrate Natural History (BIOL 313), Virginia Commonwealth University
- 2013 Research Methodology and Ethical Conduct of Research (LFSC301), Recitation Leader, Virginia Commonwealth University
- 2011 Teaching Assistant: Herpetology (BIO413), University of Louisiana
- 2010 - 2011 Guest Laboratory Instructor: Acadiana High School, (Doucet Biology Classes), Lafayette LA

Students Mentored

<u>Date</u>	<u>Student</u>	<u>University</u>	<u>Project</u>
2015-2016	Kristin Dillard	Virginia Commonwealth University	Possible hybridization of two Emydid turtle species in the genus <i>Pseudemys</i> across three riverine sites in east-central Virginia (Master's thesis)
2014	John Tyler Twyford	Virginia Commonwealth University	Home range analysis of the snapping turtle, <i>Chelydra serpentina</i> , in Virginia waterways
2013 - 2014	Stephanie Helbig	Humbolt State University	Mercury Bio-Accumulation in various size classes of the snapping turtle, <i>Chelydra serpentina</i>
2012 - 2013	Eric Burke	Virginia Commonwealth University	Population viability of snapping turtles, <i>Chelydra serpentina</i> , in Virginia waterways under increasing harvest pressure
2012	Cynthia Scheuermann	Virginia Commonwealth University	Population viability of snapping turtles, <i>Chelydra serpentina</i> , in Virginia waterways under increasing harvest pressure

Presentations

- 2017 University of Yangon, Yangon, Myanmar
Oral Presentation
“The Status of Snapping Turtles (Chelydra serpentina) in Virginia: Population Viability, Demography, Regulatory Analysis, and Conservation” as presented by Derek M. Johnson, PhD
- 2017 102nd Ecological Society of America Conference, Portland, OR
Poster Presentation
“The Status of Snapping Turtles (Chelydra serpentina) in Virginia: Population Viability, Regulatory Analyses, and Conservation”
Presentation focused on the status of snapping turtle populations within the Commonwealth of Virginia. The effectiveness of current, past, and potential harvest regulations on maintaining population growth rates under multiple levels of harvest intensity were assessed through the use of population matrix modelling. Conservation recommendations based on findings from this work were also presented.
- 2017 The 82nd North American Wildlife and Natural Resources Conference
Oral Presentation
“The Status of Snapping Turtles (Chelydra serpentina) in Virginia”
Presented initial findings from mark-recapture study of snapping turtle populations and the effect of commercial harvest on population growth rates.
- 2015 International Congress for Conservation Biology, Montpellier, France
Poster Presentation
“Snapping Turtle (Chelydra serpentina) Home Range Analysis in an Open River System: Implications for Conservation and Harvest Regulations”
Presentation focused on the home range of snapping turtles in an open river environment for the first time and addressed possible associated conservation implications. In addition, seasonal shifts in home range size were examined and differed from past studies conducted in lentic environments.
- 2015 The Wildlife Society 22nd Annual Conference, Winnipeg, Manitoba, Canada
Poster Presentation
“Snapping Turtle (Chelydra serpentina) Home Range Analysis in an Open River System: Implications for Conservation and Harvest Regulations”
Presentation focused on the home range of snapping turtles in an open river environment for the first time and addressed possible associated conservation implications. In addition, seasonal shifts in home range size were examined and differed from past studies conducted in lentic environments.
- 2014 Natural Areas Association, Dayton, OH
Poster Presentation
“Commercial Harvest Pressure and Regulation Strategies to Manage Snapping Turtles (Chelydra serpentina) among US States”
Presentation outlined the commercial harvest regulations in the 33 states that make up the natural range of the snapping turtle in the US. Additionally, the efficacy of size limit harvest regulations was analyzed for 11 of those states using a Bayesian approach, with the results indicating a significant reduction in harvest intensity in years of high harvest.
- 2014 99th Ecological Society of America Conference, Sacramento, CA
Oral Presentation
“Commercial Harvest of Snapping Turtles (Chelydra Serpentina) in the United States: International Export, Harvest Pressure, and Regulatory Strategies”
Presentation outlined the status of the snapping turtle, as it pertains to commercial harvest, within the United States and as a globally traded commodity. Federal export records for the last decade were provided that show the snapping turtle moving from the eighth most exported live reptile to the second in 2013. Further, the regulations in place for all 33 states that make up the range of this turtle were presented, with historical data provided for 11

of those states. Analyses examined the efficacy of harvest regulations in place, with size limit regulations being the most widely used, and according to our model, potentially the most effective.

- 2014 Virginia Waters Conference, Richmond, VA
Oral Presentation
“Commercial Harvest of Snapping Turtles (Chelydra Serpentina) in the Mid-Atlantic”
Presentation focused on the historic commercial harvest of snapping turtles in the Mid-Atlantic region of the United States. Harvest data from North Carolina, Maryland and Virginia were shown, with each indicating an increasing trend in commercial harvest over the last decade.
- 2013 Integrative Life Sciences Research Showcase, Virginia Commonwealth University, Richmond, VA
Poster Presentation – Award for Top Ranked Poster Presentation
“Commercial Harvest of the Common Snapping Turtle (Chelydra serpentina) in Virginia”
Presentation presented historical commercial harvest data of snapping turtles in Virginia. Highlighted within the presentation was an examination of the overall trends in commercial harvest which show an exponential increase in harvest over the ten year span from under 700 individuals to over 6000.
- 2011 George Wright Society Biennial Conference on Parks, Protected Areas, and Cultural Sites, New Orleans, LA
Oral Presentation
“Pollinator Biodiversity in Marin County, California”
Presentation outlined the findings of a two-year study on the biodiversity of bees and wasps in Marin County, California. Included were comparisons between Marin sites and those found in John Muir National Historic Site and Golden Gate Recreation Area (Presidio), as well as a detailed inventory of species identified in study. Species cataloged included bees, wasps, flies and the various plants, native and non-native, that they were potentially pollinating. Presentation has expanded to include data to help address the lack of studies on bee diversity in natural areas and wildlands, including Golden Gate National Recreation Area and Point Reyes National Seashore.
- 2010 Academic Scholars Showcase, Dominican University of California, San Rafael, CA
Oral Presentation
“Pollinator Biodiversity in Marin County, California”
Presentation outlined the findings of a two-year study on the biodiversity of bees and wasps in Marin County, California. Included were comparisons between Marin sites and those found in John Muir National Historic Site and Golden Gate Recreation Area (Presidio), as well as a detailed inventory of species identified in study. Species cataloged included bees, wasps, flies and the various plants, both native and non-native, that they were found on, signifying potential pollination.
- 2010 National Conferences on Undergraduate Research, University of Montana, Missoula, MT
Poster Presentation
“Growth and Survival of Delta Smelt Fed Field-Collected Copepods”
Presentation examines the predator/prey relationship, with emphasis on growth and survival factors, of larval and juvenile planktivorous fish and their zooplanktonic prey, consisting of both introduced and native copepod species in the San Francisco Estuary.
- 2009 9th Biennial State of the San Francisco Estuary Conference, Oakland, CA
Poster Presentation
“Growth and Survival of Delta Smelt Fed Field-Collected Copepods”
Presented a poster, and conducted a question and answer session on aforementioned research involving survival and growth of larval and planktivorous fish in the San Francisco Estuary.

Fellowships and Grants

- 2015 Virginia Department of Game and Inland Fisheries Research Grant (\$27,000)
- 2014 Virginia Sea Grant (\$3,000)
- 2013 The Rice Center for Environmental Sciences Research Grant (\$2,500)
- 2013 Sigma Xi Aid-in-Research Grant (\$500)
- 2012 The Rice Center for Environmental Sciences Research Grant (\$2,500)
- 2011 Virginia Department of Game and Inland Fisheries Research Grant (\$63,720)
- 2010 Louisiana Board of Regents Graduate Fellowship (\$192,000)

Academic Honor Societies and Awards

- 2015 - *President* – Virginia Commonwealth University Integrative Life Sciences Student Organization
- 2016
- 2013 - *President* – Natural Areas Association, Virginia Commonwealth University Chapter
- 2015
- 2015 Phi Kappa Phi
- 2012 Golden Key International Honour Society, Top 15% of Graduate Students
- 2010 Departmental Honors, Department of Natural Sciences and Mathematics, Dominican University of California
- 2010 Academic Scholar, Dominican University of California, San Rafael, CA
- 2009 *President* - Alpha Chi, National College Honor Scholarship Society, California Lambda Chapter
- 2009 Volunteers-In-Parks Citation, United States Department of the Interior and the National Park Service in honor of bee and wasp research in Marin County, CA
- 2009 Alpha Chi, National College Honor Scholarship Society, California Lambda Chapter
- 2008 Beta Beta Beta, Biological Honor Society, Phi Pi Chapter
- 2008 Alpha Sigma Lambda, National Honor Society for Adult Learners in Higher Education, Omega Alpha Chapter
- 2007- Dean's List & Gamma Sigma, Academic Honor Society of Dominican University of California
- 2010

Professional Associations and Memberships

American Society of Naturalists
Ecological Society of America
Sierra Club
Society for Conservation Biology
Sigma Xi
The Wildlife Society

References

Lee Wise
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