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**First and foremost**

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I could keep going on for pages about how much I valued having Petra and Chris as co-advisors, both individually and together, but I’ll wrap up with a few concluding thoughts. First, I’m thankful that they were really good about collaborating in a unified manner and not contradicting each other, despite this being their first time co-advising a graduate student together. In addition, although sometimes it was inexplicable to me, they both had so much faith and trust in me. It seems like a simple thing, but it was really valuable whenever I felt that I was progressing too slowly or not achieving enough. At the same time, I also thank them for reining me in when I was tempted to take on too many additional projects. There were definitely times when I needed that gentle reminder to just focus on completing my dissertation. Overall, I really felt supported and respected, and I am deeply grateful to Petra and Chris for their guidance, patience, and mentorship throughout the past 5 years.

**Dissertation committee**

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**Primary collaborators**

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The Monongahela National Forest was a wonderful study area in terms of its exciting wildlife species, overall biological diversity, gorgeous scenery, and outdoor recreational opportunities. However, it also had its nightmarish qualities. In terms of anti-acknowledgments, I certainly did not appreciate these aspects of the Monongahela National Forest: roads that appear on Google Maps but do not actually exist or are not drivable; gates that do not open; white-tailed deer that leap into the road directly in front of you while you are driving; no cell service when you develop a flat tire and cannot find a lug wrench; barely drivable, muddy roads; treacherous terrain; dreadfully endless rhododendron thickets; stinging nettle that somehow pierces through your clothing; ticks, mosquitos, and biting flies; and unpredictable rain showers and thunderstorms. Despite all that, I do offer the Monongahela National Forest my sincere gratitude for not completely entrapping my field vehicle in deceptively soft mud through which I foolishly attempted to drive and for not injuring me when I made questionable decisions like creeping across a fallen branch suspended 5 feet in the air to take a break from a maddening battle with rhododendron or shimmying down a fallen tree trunk to descend a steep rock cliff.

**Field season assistance**

I would like to thank everyone who provided assistance with field housing, field site access, and field equipment during my 3 field seasons in the Monongahela National Forest. From the U.S.D.A. Forest Service, I am grateful to Dr. Cathy Johnson, Kyle Crafts, Gregory Brooks, Andy Moore, Shane Jones, Dr. Melissa Thomas-Van Gundy, Jon Morgan, Jack Tribble, Joe Foster, Rachel Arrick, and Bonnie Shawyer; and from the West Virginia Division of Natural Resources, I am grateful to Keith Krantz, Rich Rogers, Brian Kain, and Danny Bennet. I also want to express my sincere gratitude to Dr. Jim Anderson, Donna Hartman, and Gregory Brooks for lending me acoustic recording units and facilitating the exchange prior to and following the game bird sampling season. In particular, Dr. Anderson’s generous contribution of acoustic recording units more than doubled my sample sizes.

Furthermore, all of my field vehicles, gasoline for the field vehicles, and the majority of my field equipment were provided by the West Virginia Cooperative Fish and Wildlife Research Unit. My fieldwork in the Monongahela National Forest would not have been possible without that support. The steadfast Ford Explorer served me well for all 3 field seasons, despite some drama involving a white-tailed deer collision, too many flat tires, and intermittent warning messages; the Silver Patriot was mostly reliable when needed; the Gold Patriot was an absolute terror during my first 2 field seasons, and I was relieved when it was retired from the fleet; and the new Silver Latitude was excellent. I am grateful to Colonial Court Service Station in Elkins for dealing with field vehicles issues when they occurred.

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Although much of the contemporary field data was entered and proofed by myself and my field technicians, I was aided in data entry and data proofing by several volunteers and WVU undergraduate student workers, including Blayne Ott, Cassidy Rausch, and Aly Scheibe. In addition, Daniel Rubianto and Marleigh Kuhn entered historical data from paper datasheets into electronic databases.

Processing the game camera data and especially the acoustic recording unit data was a mammoth and marathon effort involving my field technicians and many volunteers, WVU undergraduate student workers, and a WVU undergraduate student intern. For game camera data processing, I heartily thank Annie Simpson (who processed 58 wildlife openings), Seth Blackwell (who processed 38 wildlife openings), Jacob Lam (who processed 37 wildlife openings), and Larissa Babicz (who processed 11 wildlife openings). Aly Scheibe, Kayley Toothman, Megan Tenney, Connor Tracey, Maria Tallman, and Leah Bittinger also helped with processing game camera data. For the acoustic recording unit data processing, I give all the kudos and appreciation to Marleigh Kuhn (who processed >57 wildlife openings), Daniel Rubianto (who processed at >50 wildlife openings), Jeremy Castle (who processed >24 wildlife openings), Domonique Ennis (who processed >15 wildlife openings), Kyle Klotz and Larissa Babicz (who each processed 9 wildlife openings), and Audrey Longenecker (who processed 5 wildlife openings).

**Computing resources**

Some of my Bayesian models took days to weeks to run successfully, and I was often running up to 10 models at a time. I would have constantly crashed my poor personal computer if I had attempted to run those models without the computing resources provided by Chris and the West Virginia Cooperative Fish and Wildlife Research Unit, so I am deeply thankful for the use of Chris’s computer workstation and the two Unit computers.

**West Virginia Cooperative Fish and Wildlife Research Unit**

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**Final context and perspective**

At various points over the past 5 years, and especially in the past 2 years, I have felt like I was not making enough progress fast enough or not being productive enough, so here’s a reminder and acknowledgment of what I was able to accomplish while pursuing my doctoral degree, due to the support of everyone listed above: I enrolled in 11 classes (including 4 statistics courses and 3 GIS courses) across 5 semesters and maintained a 4.0 GPA; I developed a 111-page dissertation proposal with 5 chapters; I earned $183,000 from 5 graduate fellowships and $20,000 from 6 scholarships; I prepared and submitted 14 grant proposals, including to the National Science Foundation, and was ultimately awarded $8,180 in funding from 6 research grants; I conducted fieldwork from April to August (4 months) for 3 years (an equivalent of 1 full year of fieldwork); I hired, trained, and supervised 7 field technicians and coordinated 7 fieldwork volunteers; I mentored, trained, and/or supervised 13 WVU undergraduate students; I completed 7 different research projects, from initiation to manuscript preparation; I was first author (N = 4) or co-author (N = 5) on 9 peer-reviewed journal articles; I delivered 12 oral and 7 poster presentations at 9 international / national conferences, 4 regional conferences / meetings, and 6 local events; I was invited to speak at 13 events hosted by 8 organizations; and I persisted through a disruptive global pandemic.