

## 2020 Wild Felid Legacy Scholarship Recipients

This year WFA received 9 scholarship applications. The WFA Council is pleased to announce Darby McPhail, Marlin Dart, and Camilla Dunner as this year's recipients. Darby has been selected to receive the Deanna Dawn Scholarship award (\$1500); Marlin and Camilla will each receive \$1250. The decision was difficult given such a deserving group. WFA was able to provide this year's scholarships because of the generous support from an anonymous donor and WFA members. We thank all the applicants for their drive to understand, conserve and coexist with wild cats. We have provided information on the scholarship recipients' projects below.

**Darby McPhail**, MS candidate, Virginia Tech; [dkm5ek@vt.edu](mailto:dkm5ek@vt.edu)  
Advisor: Dr. Marcella Kelly, [makelly2@vt.edu](mailto:makelly2@vt.edu)



*Thesis:* The missing link: Determining puma densities to assess importance of meso-predator release vs. umbrella species in a neotropical predator guild.  
*Objectives:* 1) Produce spatially-explicit density estimates via spatial mark-resight (SMR) modeling for pumas across four sites in Belize incorporating habitat and landscape covariates. 2) Compare densities of jaguars, pumas, and ocelots, over 12 years to determine support for mesopredator release (MRH) versus umbrella species concepts (USC).

Darby explains, "My goal is to contribute to felid conservation by focusing on puma ecology. Pumas are overlooked in Neotropical research because most studies focus on jaguars. Yet, the puma might fill the "missing link" between jaguars and ocelots, to address whether MRH or USC is more important structuring ecosystems. To date, ocelot density and survival have been completed for 12 years in Belize, and jaguar analyses are underway, yet no one has attempted puma estimates from the extensive dataset. I plan to pursue a PhD and become a professor, where my goals are to inclusively disseminate knowledge to future generations, nurture passion for the natural world, and conduct research to ultimately further conservation of felids, while giving me a platform to empower women in this field. Dr. Kelly writes, "Her research plan to examine whether there is more support for jaguars as an umbrella species, or whether they suppress their closely related competitors, pumas, is compelling and exciting. While Darby has only been in graduate school since January 2020, it is clear that she is intelligent as she is on track to receive excellent grades in her first three courses. Darby is also diligent, highly empathic, focused, driven, and has the ability to overcome and problem-solve under extraordinary circumstances. She is committed to reaching out to women and unrepresented minorities to encourage them into STEM fields and has already mentored several such students."

*Completion date:* Spring 2022.

**Marlin Dart**, MS candidate, South Dakota State University; [Marlin.Dart@sdsstate.edu](mailto:Marlin.Dart@sdsstate.edu)  
Advisor: Dr. Robert Lonsinger; [Robert.Lonsinger@sdsstate.edu](mailto:Robert.Lonsinger@sdsstate.edu)



*Thesis:* Influences of landscape patterns, land-cover features, and intraguild interactions on the spatial and temporal ecology of bobcats (*Lynx rufus*).  
*Research Objectives:* Evaluate the influences of landscape patterns, land-cover features, and intraguild interactions on the patterns of occurrence of bobcats. Evaluate the influences of habitat loss and fragmentation on bobcat activity patterns and impact on competition with coyotes and potential for human-wildlife conflict.

Dr. Lonsinger writes: "Since starting his graduate research... Marlin has excelled in his coursework and has consistently displayed an impressive ability to learn and apply complex quantitative analyses with minimal guidance; his abilities in this area better reflect the levels expected of PhD students. He is currently enrolled in my advanced occupancy modeling course and ... has been regularly assisting other graduate students in understanding the modeling procedures.... This is not surprising, as Marlin regularly demonstrates a caring and compassionate disposition. Marlin has also

demonstrated competence in the field, high integrity and care for data collection, and a positive attitude. His thesis focuses on better ...manag[ing] agricultural-dominated landscapes in the Great Plains to promote bobcat conservation. Consequently, his research requires that he regularly interact with private landowners and obtain land-access permissions. Marlin has garnered broad support among local landowners...., a testament to Marlin's interpersonal skills. Marlin was a first-generation undergraduate student and succeeded despite considerable hardships (some of which required him to drop out of school for a period to assist his family in a time of emergency). Despite these hardships, Marlin remains a positive and inspiring individual.”  
*Completion date:* May 2021

**Camila Dünner**, PhD candidate, Andrés Bello University, Santiago, Chile; [cfduunner@gmail.com](mailto:cfduunner@gmail.com)

*Major Advisor:* Dr. Alejandro Simeone; [asimeone@unab.cl](mailto:asimeone@unab.cl)



*Dissertation:* Humans and carnivores in the central zone of Chile: bidirectional responses in a growing interface.

*Objectives:* Evaluate the response of the carnivore community in the Metropolitan and Valparaíso Regions, Chile, to anthropogenic disturbance, as well as the human response to the local conflict that these species generate with subsistence livestock raising.

Camila writes: “I feel I have finally reached a point in my life where my dreams are becoming real. I have developed a more critical and holistic point of view of conservation, I have met amazing colleagues and my mind is now inspired with many new research ideas to achieve efficient conservation strategies. ....I aim to continue working

nationally for our endangered cats, but also to collaborate with [other] international institutions....., sharing knowledge, experiences, passion and motivating future generations to get involved. .... Conflicts like the one we are studying have been widely recognized nationally but never characterized or quantified, therefore no mitigation measures have been proposed. Consequently, the lack of information results in a scarce allocation of resources from private and public institutions to face it. That is why scholarships like this can have an impact much bigger than just providing the necessary resources to complete vital objectives of the project. The scholarship could show the government that previous experiences and opportunities are out there, to generate the evidence they need to act with certainty and increase public awareness.”

*Completion date:* December 2021