**Prompt:** Tell us in 100 words or less how characterizing genetic variation in your favorite plant or animal species with HiFi sequencing will contribute to a healthier population and planet

Genomic Approach to Conservation of Crayfish Biodiversity

Biodiversity

PI: Carla Hurt

**Genome sequencing is a powerful tool for understanding adaptive variation and demographics of endangered species. Conservation actions for crayfish are urgently needed; 20% of species are threatened with extinction. Genomic resources for crayfish are lacking. Only one genome has been published for the crayfish family Cambaridae (>400 species). This project would use PacBio technology to construct a novel genome of *Faxonius wrighti*, a rare Tennessee crayfish. Long-read sequencing is critical for WGS in crayfish due to their repetitive genomes. Our results would inform conservation needs of *F. wrighti*, which is currently under consideration for listing under the Endangered Species Act.**