#IamPhysSci - Kyle Manley, Ph.D., Earth System Science

Monday, June 10, 2024
Lucas Van Wyk Joel
UCI School of Physical Sciences



Kyle Manley discovered his love for science and the outdoors in an unlikely place: indoors.

Picture Credit:
Lucas Van Wyk Joel

Kyle Manley, who’s about to graduate from UCI with his Ph.D. in Earth System Science, received a cancer diagnosis when he was just 16 years old. It was an

inflection point for Manley, who, sitting on a bench in Aldrich Park, explained that without his diagnosis his life may have turned out much differently. “A lot of that time I couldn’t be outdoors, so I would just watch nature documentaries. It’s so weird thinking about it now, but that’s where I really got interested in the science aspects of the planet, because I was listening to a lot of science and was reading a lot of books, and I thought this was where I wanted to get involved,” Manley said.

Growing up in Colorado, Manley spent much of his time outdoors. After discovering his interest in science, he wanted to find a way to quantify the under-appreciated values of natural spaces – and, in that way, what humanity stands to lose as global changes in climate intensify. “There are many intangible benefits we receive from nature, including our relationship to nature, how we recreate within nature, as well as the values our culture places on nature,” said Manley. “They’re a lot harder to study, because they’re a lot less straightforward than, say, just measuring temperature changes in a region.”

In recent work, Manley, alongside his doctoral advisor Professor Benis Egoh, set out to measure the current and future value of cultural ecosystem services in South Africa. They found that non-material benefits produce great value for both international and domestic tourists – but without adaptive measures, changes in climate, ecological structure and health will significantly impact that value in the future. “As the climate changes, a lot of the value people derive from nature is going to be degraded,” said Manley, who’s going on to a postdoctoral position at the University of Colorado in Boulder. “But if we can assign a measure to those losses, it could help guide our approach to effective climate change solutions.”

News Briefs
Earth System Science
Instruction
The Future of Energy and the Environment
Climate Change
View PDF