

>> [Intro Music] My name is Linda Joyce and I'm a Research Ecologist with the Rocky Mountain Research Station.

I'm currently working on a project that is analyzing the impacts of climate change on wildlife habitat.

We are looking at how climate will affect several dimensions of wildlife habitat.

We construct an index of the changes between present and future climate, both temperature

and precip, changes in the vegetation production, present and future, and the changes in the vegetation types.

So, for example, if it's a lodgepole pine right now, will it still be a lodgepole pine, or will it change to a shrubland or a grassland or another type of forest.

My role in this project is as co-lead and my co-lead with me is Curt Flather, who is a research scientist here at the Rocky Mountain station.

Curt brings in the wildlife ecology and I bring in the vegetation and the quantitative side of it.

So, we have a nice mix of skills for this project.

Our results suggest that the greatest stress will be in the northern part of the Rocky Mountain region, Colorado and Wyoming.

And, the lowest stressed, this is relative now, will be in the Southwest, Arizona and New Mexico.

So, it's going to warm in the Southwest, Arizona and New Mexico, and the changes in climate will be overall greater down there than in the northern part of the region.

But, there will be changes in vegetation and in type of ecosystems up in the northern part,

so we see the greatest stress up there.

This research is part of the Resource Planning Act assessment, a periodic assessment done every 10 years,

looking at all natural resources on all forest and rangelands.

Wildlife managers are concerned about habitat for wildlife species today and they have to address stresses like land-use change or water quality, air quality issues, the degradation of their wildlife habitat.

That's a near-term concern and their focus on trying to prioritize their resources across the habitats that they manage for.

What our research information provides them with is a peek at the future, and what might happen in the future.

And so, they could see how habitat will change in the future and they might have to address that.

What we discovered in our results is that the current stressors that wildlife managers manage for, are not in the same locations where the future stress will be with climate change.

This complicates their decision-making because they have a suite of issues right now in one location and in the future they're going to see a suite of issues in different locations.

We hope our information will help them prioritize across time with these two challenges that they have to face.

What excites me most about this project is that it's an opportunity to synthesize a lot of information about how climate change will affect wildlife habitat, how climate will change - to wildlife managers, and help them in their decision-making everyday.