

Golden Gate Climate Update Transcript

Interview with Dr. David Ackerly
Professor of Integrative Biology at U.C. Berkeley
Interviewed on September 2, 2009

James Osborne interviewer

Part 2

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James - Hi, I'm Ranger James Osborne, and welcome to Golden Gate Climate Update, your source for information on climate change and sustainability.

This episode is a continuation of our discussion with Dr. David Ackerly, Professor of integrative biology at UC Berkeley, who studies climate change and botanical response in California. But before we get back to the interview, it's time for the answer to our climate update challenge. Forests in the U.S. are regenerating for two reasons. Wood is no longer a primary fuel, and agriculture is much more efficient today, allowing millions of acres of unused farm land to be retired and returned to forest land. Unfortunately deforestation in most of the 3rd world is still a terrible epidemic.

Now back to Dr. Ackerly. Do you have any suggestions for how parks should manage their natural resources in order to retain either current ecosystems or to maintain California's botanical and faunal diversity?

David - To start with, we can be very proud of our local, state and national Parks. Here in the Bay Area, 25% of the entire landscape is protected in one way or another, and this is a great resource for conservation of biodiversity, and for recreation and tourism. As climate changes, many of the challenges facing the parks will be the same, and will be even more urgent. Controlling invasive species, managing wildfires, restoring degraded lands – these activities, which can enhance habitat for native species, will continue to be high priorities. The fear is that plants and animals that currently occupy particular parks could start to disappear, so we need to be ready for these changes. The parks of the future may have different habitats, different ecosystems, but they can still provide important ecosystem services, such as carbon sequestration, water filtration, and erosion control. We need to look closely at where we can expand the parks, especially by establishing connections between protected areas that aren't too far apart, to allow for species to migrate and to maintain larger populations of wildlife. Our priorities should be the protection of steep climatic gradients, for example, connecting the coastal zone to adjacent mountains, so that we cover a wide

range of conditions within each park. The Point Reyes-Mt. Tam region is a great example, where we've got a large reserve that spans a wide range of conditions and habitats, and we expect this will offer the greatest protection in the face of climate change.

James - Is there anything that our listening audience can do to reduce the impact of climate change on the amazing plant diversity in California?

David - The first and most important thing we can do to reduce the impacts of climate change is to reduce the pace of climate change itself - energy conservation and the switch to renewables are top priorities. But that won't be enough, because even if we stopped burning fossil fuels completely right now, there is enough CO2 built up in the atmosphere that temperatures will continue to rise for some time. So we need to protect our parks - whether it's pitching in to help clear invasives or restore habitats, or letting our representatives in Sacramento and Washington know that we care - that the protection of biodiversity and all the benefits that come with it - must be a top priority in the face of changing climates.

James - Well thank you Dr. Ackerly for talking with us today.

David - Sure thing.

James - Please join our next podcast, when we will be interviewing Michael Reichmuth, who is a fisheries biologist with the National Park Service. Micheal studies salmon and steelhead in the streams of Bay Area national parks, and will give us some insight as to how they may be affected by climate change. Until our next podcast this is James Osborne. Thanks for listening.

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Male voice - Golden Gate Climate Update is produced by Will Elder and is a product of the Earth to Sky Program, an innovative partnership between the National Park Service and NASA.

Music from *A Walk in the Desert* by Electronic Symphonic