LIST OF CLIMATE RESEARCHERS

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Name	Contact	Unit	Connection
Gamroth, Mike	541-737-3316 mike.gamroth@oregonstate.edu	ANS	http://ans.oregonstate.edu/personnel/faculty/gamroth.htm In the third year of a project to promote and develop anaerobic digesters on livestock operations for emissions mitigation and renewable energy production. Construction on the first unit will commence soon. Two others have been approved by local land use planning departments. Three others are in the permitting process.
Capalbo, Susan	541-737-1856 susan.capalbo@oregonstate.edu	AREc	http://arec.oregonstate.edu/faculty2/capalbo.html Dr. Capalbo has been involved in the economics of climate change, carbon sequestration and integrated policy analysis and tradeoff assessment for the past 15 years. While at Montana State University, she was the Director of the Big Sky Carbon Sequestration Partnership. The Partnership is addressing the opportunities and challenges for carbon sequestration in both geological and terrestrial sinks. The pilot and large scale injection demonstration tests are the hallmark of the seven DOE partnerships and include detailed monitoring, measurement, and validation analyses as well as economic assessments of costs of CCS and regulatory, risk management and legal issues associated with long term storage. The Partnership reflects collaboration among research institutions, industry, and state and environmental agencies in WA, OR, ID, MT and WY region, and with international partners in Canada and Norway. Complimentary to the efforts on geological sequestration, Dr. Capalbo was the PI for the MSU CASMGS effort (2002-2006), a multi-year nine institution effort to address terrestrial sequestration of GHG funded through USDA. She served on the Executive Committee for the CASMGS efforts and is currently working with private foundations and government agencies to extend the research and outreach efforts for carbon offsets and terrestrial sequestration throughout the West.
Jaeger, William	541-737-1419 wjaeger@oregonstate.edu	AREc	http://arec.oregonstate.edu/jaeger/homepage.html Natural resource, environmental, and agricultural policy; institutional economics, public economics and taxation; economic growth, development and sustainability. *Oregon Invests!:…* Next, these significant costs are compared to those of various other climate change ideas that have been evaluated—regulatory controls on greenhouse gas emissions, various carbon sequestration actions, carbon taxes, a market-based cap-and-trade scheme.
Plantinga, Andrew	541-737-1423 plantinga@oregonstate.edu	AREc	http://arec.oregonstate.edu/faculty2/plantinga.html Dr. Plantinga 's research focuses on the economics of land use, climate change, and forests. Particular emphasis is given to the development of methods for econometrically modeling land-use decisions, the application of land-use models to environmental and resource policy problems, and the modeling of land development pressures. Current projects involve the use of a national-level (U.S.) econometric model of land use to evaluate wildlife conservation policies

			and factors determining historical land-use changes. Another project analyzes the effects of forest fragmentation on wildlife species, and evaluates land-use policies designed to lessen adverse effects of fragmentation. Several projects examine how growth management restrictions in Oregon affect property values. Finally, he has been working on applying techniques from macroeconomics to models of natural resource markets. A current project analyzes optimal fisheries management under uncertainty.
Reimer, Jeff	541-737-1415 jeff.reimer@oregonstate.edu	AREc	http://people.oregonstate.edu/~reimerj/index.htm • International Commodity Markets • Consumer Preferences and International Trade • Marketing in Niche Market Channels • Measurement of International Trade Costs • International Agricultural Development *Oregon Invests!:…* Climate change may affect the yields of farmers around the world. Using aggregate yield data from crops from 21 countries, this study conceptualizes and then estimates a model that shows crop yield distributions, costs of accessing foreign markets, and the countries' relative competitiveness. The model is then used to simulate reactions to changes in variable values, such as trade costs, yield variability, and technology.
Weber, Bruce	541 737 1432 bruce.weber@oregonstate.edu	AREc	http://arec.oregonstate.edu/faculty2/weber.html Current research projects focus on the causes of poverty and hunger in rural areas, particularly on the interaction of community characteristics, public policy and household economic outcomes for low-income people. Current Extension programs deal with rural policy and the economic and social conditions in rural communities. *Oregon Invests!:…* Rural communities are particularly vulnerable to climate change because their internal capacity and infrastructure to deal with large, or even gradual, change in their natural resource base on which their livelihoods depend, is limited.
Bachelet, Dominique	360.943.7519 bachelet@fsl.orst.edu	BEE	http://www.fsl.orst.edu/~bachelet/ • Simulation modeling • Ecosystems research • Nutrient cycling • Climate change impacts • Methane emissions (agricultural and natural wetlands) *Oregon Invests!:…* Given the concern about global climate change, a dynamic global vegetation model, MC1, was developed to predict vegetation distribution, natural fire frequency, and carbon pools and fluxes in response to alternative climate change scenarios. MC1 calculated new estimates for the North American carbon budget. A new project with MC1 will provide results for world ecosystems using another set of climate change scenarios.
Bolte, John	541.737.2041	BEE	http://eco-informatics.engr.oregonstate.edu/boltesrc.html

	boltej@engr.orst.edu		• Oregon State University PI for the multi-institution Pacific Northwest Regional Collaboratory, leading the development of web-based application architecture and software for delivering geospatial and remote-sensing based decision support tools for natural resource management and decisionmaking. • CoPI of a multidisciplinary NSF Biocomplexity project studying the interactions of riparian policy evolution, land use, and riparian function in several Willamette basin watersheds. This effort, initiated Fall 2001, uses spatially explicit analysis with a multiobjective decisionmaking core and an agent-based simulation approach to evolve policy/pattern constructs to explore development of effective strategies for managing riparian areas under conditions of ecological and social function scarcity. • PI of a highly multidisciplinary EPA-funded project "Developing Methods and Tools for Restoration Decisionmaking: Design, Implementation and Assessment in the Willamette Basin." This project integrates ecological, economic, and social scientists with information engineers and stakeholder groups to address the complexities of watershed restoration decisionmaking under constraints via spatially explicit multiobjective optimization. • PI of an EPA project developing a range of software tools for simulation analysis, inferencing, and spatial analysis. These tools implement state of the art, computationally efficient analysis methodologies applicable to the analysis of complex systems, as well as associated visualization and data mining codes. • Involved in a highly multidisciplinary project collectively referred to as the Pacific Northwest Ecosystems Research Consortium, focused on applying multidisciplinary perspectives on watershed processes, data synthesis and landscape evolution modeling to alternative futures analysis in the Willamette basin, Oregon. *Oregon Invests!:…* This project developed simulation tools for a broad class of systems, especially for ecological and environmental analysis. The tools are used, for example, to predict the effects of differing river management strategies on salmon survival, to analyze impacts of global climate change on plants and animals, or to determine effects on agricultural production of various water use treatments
Cuenca, Richard	541-737-6307 Cuenca@engr.oregonstate.edu	BEE	http://bee.oregonstate.edu/Faculty/cuenca/index.htm • Measurement and simulation of soil water distribution in field conditions and design of monitoring systems. • Determination of local and regional scale evapotranspiration and crop water use. • Applications of remotely sensed data and geostatistical analysis to water resources evaluation and hydrologic balance modeling. • Measurements of diurnal radiation and energy balance over land surfaces and longer term hydrologic balance based on soil water monitoring. *Oregon Invests!:…* This basic research in hydrologic science is currently studying the representation of soil hydrodynamic characteristics at differing scales in hydrologic models,

			while considering separately the effects of textural and structural properties of the soil. The work has direct application to global climate change studies, irrigation system design, watershed analysis, and other practical uses.
Selker, John	541 737 6304 selkerj@engr.oregonstate.edu	BEE	http://bee.oregonstate.edu/Faculty/selker/index.htm Research includes basin scale hydrologic analysis, development of distributed environmental sensing systems, hydrological instrumentation, and study of colloidal transport processes. Teaching activities include the developing of four courses, and initiation and coordination of campus wide restructuring of hydrology courses.
Tullos , Desiree	541 737 2038 tullosd@engr.orst.edu	BEE	http://bee.oregonstate.edu/Faculty/tullos/index.htm **Areas of Specialization** • Ecohydraulics • River morphology and restoration • Bioassessment • Habitat and hydraulic modeling **Current Research** • Field investigations of biological responses to restoration and engineered applications in riveriene ecosystems • Development and evaluation of targeted and appropriate bioindicators for the assessment of engineered designs in riveriene systems • Documenting and developing management of the effects of urban and agricultural activities and management practices on aquatic ecosystem stability in developing countries.
Vache, Kellie	541 737 6307 vachek@engr.orst.edu	BEE	http://bee.oregonstate.edu/Faculty/vache/index.htm • Watershed hydrology and modeling • Implications of evolving landuse patterns and climate change • Alternative futures analyses for land use planning and sustainability • Geographic Information Systems and simulation of environmental processes
Behrenfeld, Michael	541 737 5289 behrenfm@science.oregonstate.edu	BPP	http://www.science.oregonstate.edu/bpp/faculty/Behrenfeld/index.html Physiological-ecology of marine algae, biogeochemcial cycles, remote sensing of the biosphere, novel optical approaches to understanding algal ecology/physiology, biochemistry & biophysics of photosynthesis, physiological responses of plants to environmental stresses, and regional & global ecological modeling, climate change and carbon cycling.
Coakley, Stella	1 541 737 5264 stella.coakley@oregonstate.edu	BPP	http://www.science.oregonstate.edu/bpp/faculty/coakley/index.html Quantifying the relationship between climatic variation and the development of plant disease facilitates control of disease under field conditions. The long-term goal of this research has been to develop a general method for quantifying how climate variation affects a particular disease. This research considers both past and possible future effects of long-term climatic variation on disease occurrence. Current research focuses on the biology of the Septoria diseases that are increasing in their importance as limiting factors to wheat production.
Jaiswal, Pankaj	541-737-8471	BPP	http://www.science.oregonstate.edu/bpp/faculty/jaiswal/index.htm

	jaiswalp@science.oregonstate.edu		My lab is interested in looking at the global network of genes that are involved in traits like days to flower and seed development in cereal (grass) plants. Cereals are the major contributor to majority calorie portion of the food consumed by animals and humans and the above traits are essential components of good and timely yield and nutritional value for the consumers. We want to study the gen-to-gene networks responsible for flowering and seed development because changes in climate and growth conditions such as photoperiod, temperature and other abiotic stresses like water deficit have been known to affect the yield and nutrition.
Milligan, Allen	541 737 5276 Allen.Milligan@science.oregonstate.edu	BPP	http://www.science.oregonstate.edu/bpp/faculty/milligan/ Application of cellular-scale molecular and biochemical studies of microalgae, bacteria and corals to environmental questions about ecosystem function and global change.
Mockler, Todd	541 737 5207 tmockler@cgrb.oregonstate.edu	BPP	*Oregon Invests!:…* Once understanding is sufficient to allow manipulation of gene expression, we may, for example, be able to control when flowers bloom. Implications of this possibility are enormous. For example, production of rice, the world's most basic food, is currently limited to certain geographic areas because of its flowering response to day length. If a variety of rice could be modified to tolerate longer days and lower temperatures, it could be produced at higher latitudes, greatly expanding its potential production area. This could be especially important should global warming shift other climatic factors, without affecting the day-length response.
Stone, Jeffrey	541-737-5260 stonej@science.oregonstate.edu	BPP	http://www.science.oregonstate.edu/directory/entry/49 My research concerns climate change and forest tree pathogens. A suitable model for illustrating the effect of climate change on forest health is Swiss needle cast of Douglas-fir. Douglas-fir is both an important forest tree and an agricultural species (Christmas trees). The pathogen is a native species whose current distribution and abundance is strongly correlated with climatic factors, and therefore most likely to be affected by future climate change. We are using dendrochronological reconstructions to infer the past history of the disease in forests in the Pacific Northwest, and developing models to predict disease distribution and severity under IPCC scenarios based on current climatic influences on disease distribution.
Kentula, Mary	541 754 4478 kentula.mary@epa.gov	BPP/EPA	http://www.science.oregonstate.edu/bpp/faculty/kentula/index.htm Monitoring and assessment of wetlands at regional and watershed scales. Restoration ecology, especially as it applies to wetlands.
Coop, Leonard	541-737-5523 coopl@science.oregonstate.edu	BPP/IPPC	http://uspest.org/coopl -Lead investigator, with the Western Weather Workgroup, developing website modeling infrastructure to deliver weather and climate-driven pest and plant disease decision support tools for local- and nationally-focused plant biosecurity and pest management applications. -Applying spatial methodologies to visualize pest and plant disease risk at high resolutions, for pest and natural resources management decision support. -Working with BPP and USFS scientists, developing models to predict climate change effects on disease-mediated shifts in forest ecosystems, with focus on swiss needlecast disease of Douglas fir in the Pacific Northwest.

Neilson, Ron	541 750 7303 neilson@fsl.orst.edu	BPP/US Forest Service	http://www.science.oregonstate.edu/bpp/faculty/neilson/index.html Vegetation distributions. Model simulations of the causal relations between the global climate and ecosystem processes and vegetation distribution. The long-term goal of this research is to build vegetation models that are internally consistent, yet applicable at scales from landscape to global. The model will accurately represent the energy, water and trace gas exchange between the vegetation and the atmosphere and will simultaneously determine the type of vegetation that can be supported, its location and ecosystem processes and the vegetation responses to climatic change, disturbances and alternative land-use practices. Current research explores the mechanisms of climate-biosphere interactions at scales ranging from landscape to continental with various modeling exercises at all levels.
Hannaway, David	541 737 5863 david.hannaway@oregonstate.edu	CSS	http://cropandsoil.oregonstate.edu/people/Hannaway-David His duties still involve extension, research, and teaching but specific focus has been placed on utilizing electronic technologies to better educate, communicate, and facilitate cooperative work in the areas of species adaptation and selection, grazing management, and forage/livestock systems. Specifically, David has coordinated the development of the Forage Information System, a World Wide Web "virtual center" making accurate and current forage information more widely accessible to all interested learners and decision makers throughout the world by facilitating the cooperative work of forage extension, research, and teaching personnel.
Machado, Stephen	541 278 4416 stephen.machado@oregonstate.edu	CSS CBARC	http://cbarc.aes.oregonstate.edu/agronomy The Columbia Basin Agricultural Research Center (CBARC) is home to the oldest long-term experiments in the western US. The experiments, some of which date back to the 1930's, evaluate anthropogenic effects (tillage, fertility, rotation) on soil quality, crop productivity, and sustainability. Climatic data that have been collected over this 80 year period and that will continue to be collected, will be used to determine how climate change interacts with anthropogenic activities. This analysis is essential in predicting the sustainability of current cropping systems and in designing better cropping systems.
Shock, Clint	541 889 2174 clinton.shock@oregonstate.edu	CSS MES	http://cropandsoil.oregonstate.edu/people/Shock-Clinton Sustainable Management for Potato Production and Environmental Protection Reducing Barriers to Adoption of Microirrigation Development and Evaluation of TMDL Planning and Assessment Tools and Processes "Development of cropping practices for profitability and minimum environmental impact"
Jepson, Paul	541 737 9082 jepsonp@science.oregonstate.edu	EMT	http://emt.oregonstate.edu/people/faculty/paul-jepson • Integrated pest management, including pesticide application, efficacy, drift management and ecological risk management • Use of aquatic and terrestrial insects as models for ecotoxicological research • Population level risk assessment, particularly the importance of scale, landscape factors and long-term population processes • Applications of basic ecology and ecological theory to ecotoxicology and ecological risk

			assessment
Anthony, Robert	541-737-1954 Robert.anthony@oregonstate.edu	FW	Along with a former graduate student, Betsy Glenn, we investigated the effect of local weather and long-term climate regimes on the demography of northern spotted owls throughout most of their geographic range. The results of the research have important implications for the potential effects of climate change on this threatened species of predatory bird. In addition, I have been working with Dr. Clinton Epps to develop proposals and funding to investigate the potential effects of climate change on the American pika, which inhabits rocky areas at higher elevations and is supposedly sensitive to higher temperatures. So far, we have been successful in getting funding or the pika work from the U.S. Geological Survey for a project that will be initiated later this year plus some minor amounts of funding from the U. S. Fish & Wildlife Service.
Baker, Scott	541 867 0255 scott.baker@oregonstate.edu	FW COMES Marine Mammal Institute	http://fw.oregonstate.edu/About%20Us/personnel/faculty/baker.htm Scott Baker is broadly interested in the evolution and ecology of cetaceans (whales, dolphins and porpoises), including their abundance, population structure, genetic diversity and systematic relationships. Scott is particularly interested in projects that bring together both molecular and demographic approaches to improve the conservation of these species. The advent of molecular genetics and the emerging fields of genomics and bioinformatics have provided powerful new tools to describe the hierarchical structure of biodiversity. These tools complement and extend, rather than replace, demographic methods used in animal ecology and conservation biology.
DeBano, Sandra	541-567-6337 x116 sandy.debano@oregonstate.edu	FW HAREC	http://fw.oregonstate.edu/About%20Us/personnel/faculty/debano.htm http://oregonstate.edu/dept/hermiston/sandy-debano I have several current and past projects related to the potential impact of climate change on arid and semi-arid agroecosystems. My research in this area focuses primarily on how climate change may impact the biodiversity and ecosystem functions involving insects and other animals in riparian and aquatic systems embedded within these agroecosystems. Currently, my colleagues and I are focusing on two projects examining how decreased flow and increased water temperatures in streams may impact riparian areas and streams in semi-arid systems, such as those in the interior Pacific Northwest. In one project, funded by a USDA-NRI grant, we examined how decreased stream flow impacts insect and fish biodiversity and ecosystem function in streams and riparian areas. As this project nears completion, we are beginning additional work on an EPA-STAR funded project focusing on how climate change, combined with agricultural intensification, may impact ecosystems services provided by riparian areas and streams in semi-arid systems. I am also interested in the potential effect climate change may have on insect pest outbreaks; in a recently completed project, my colleagues and I found evidence that even relatively small temperature increases in spring and fall can increase the density and range of damaging agricultural pests.
Dugger, Katie	541 737 2473 katie.dugger@orst.edu	FW	http://fw.oregonstate.edu/About%20Us/personnel/faculty/duggerk.htm Effect of Habitat characteristics and climate change on avian survival, characteristics, and foraging biology. Particularly the estimation of survival rates and reproductive success as a key element in the conservation and management of species and their ecosystems.

Edge, W. Daniel	541 737 2910 Daniel.Edge@oregonstate.edu	FW	http://fw.oregonstate.edu/About%20Us/personnel/faculty/edge.htm Effects of Agricultural and Forestry on Wildlife, Watchable Wildlife Conservation and Management, International Research and Development
Epps, Clinton	541 737 2478 clinton.epps@oregonstate.edu	FW	http://fw.oregonstate.edu/About%20Us/personnel/faculty/epps.html Connectivity and dispersal in fragmented landscapes Effects of climate and climate change on distribution and demography Human/wildlife conflict
Gregory, Stan	541 737 1951 stanley.gregory@oregonstate.edu	FW	http://fw.oregonstate.edu/About%20Us/personnel/faculty/gregory.htm Stream ecosystems: channel dynamics, woody debris, water chemistry, benthic algae, invertebrates, fish, salamanders, and riparian vegetation. Landscape perspectives for stream ecosystems. Influence of human activities on ecosystem structure and function. Historical reconstruction of rivers and riparian forests. Development of restoration perspectives and practices that are consistent with natural stream processes.
Heppell, Selena	541 737 9039 selina.heppell@oregonstate.edu	FW	http://fw.oregonstate.edu/About%20Us/personnel/faculty/heppellse.htm I devote most of my research to some of the oldest and slowest-growing animals in the sea: sea turtles, sharks, sturgeon, and west coast rockfish (scientifically know as *Sebastes*, which means "magnificent:). These marine animals share three traits: long lifespans, late age at maturity, and threats from overharvest. I primarily use computer models and simulations to help us understand how these animals respond to human impacts and to guide research and management policy towards their recovery. I am particularly interested in how these animals will respond to climate change and increasing human populations on our coastlines.
Markle, Douglas	541-737-1970 douglas.markle@oregonstate.edu	FW	http://fw.oregonstate.edu/About%20Us/personnel/faculty/markle.htm Our long term research on long-lived suckers and other fishes in Upper Klamath Lake suggests that processes associated with recruitment failure are influenced by environmental factors such as precipitation, wind speed and direction, and temperature, and that climate change could alter their impacts.
Mate, Bruce	541-867-0202 bruce.mate@oregonstate.edu	FW COMES HMSC- MMI	http://mmi.oregonstate.edu/bruce-mate Our telemetry work using satellite-monitored radio tags on large whales may have some value in a present status assessment and in predicting some of the issues for that animal group. In general, the data we are collecting is the first baseline data of its sort, but we have big surprises with every species we instrument. I'm sure some of these are not "changes" as much as discovering the variability which has never before been observable in these highly migratory and often difficult to track species.
Noakes, David	541 737 1953 david.noakes@oregonstate.edu	FW	http://oregonprogress.oregonstate.edu/fall-2006/ocean-next-door *Oregon's Agricultural Progress*: At the Oregon Hatchery Research Center, OSU researchers are studying the differences between wild and hatchery salmon and trout. "These are among the most fundamental questions in evolutionary developmental biology, investigating the contributions of genes, the environment, and their interactions," said director David Noakes.
Robinson, Doug	541-737-9501	FW	http://fw.oregonstate.edu/About%20Us/personnel/faculty/robinsonw.htm Wildlife ecology, particularly relating to songbirds and their conservation; life histories; tropical

	Douglas.Robinson@oregonstate.edu		ecology; aridlands ecology
Schreck, Carl	541-737-1961 Carl.Schreck@oregonstate.edu	FW	http://fw.oregonstate.edu/About%20Us/personnel/faculty/schreck.htm Environmental physiology and reproductive physiology of fish. Particularly, determination of effects of stress on fish performance in the wild and in the hatchery. Areas of interest include fish health, migration and development. Studies include synecology, endocrinology, immunology, molecular genetics as well as behavior and toxicology.
Wooster, David	541 567-6337 ext. 114 David.wooster@oregonstate.edu	FW HAREC	http://oregonstate.edu/dept/hermiston/david-wooster My current research related to the potential impacts of climate change on arid and semi-arid agroecosystems includes two projects that examine the impacts of decreased surface water discharge and increased water temperatures on rivers embedded within these agroecosystems. The first project was funded by the USDA-NRI program and involves examining the impacts of surface water withdrawal for irrigated agriculture on river and riparian ecosystems. This work involved a collaboration with the Confederated Tribes of the Umatilla Indian Reservation and examined the impacts of withdrawals and water temperature on fish, aquatic invertebrates, and terrestrial invertebrates. A second project involves a combination of modeling and field work to examine the impact of climate change and agricultural intensification on headwater streams and the resultant impacts on salmonid production and stream reach quality. This project is funded by the EPA-STAR program. In addition to examining the ecological consequences of climate change and agricultural intensification, this project involves an examination of the economic benefits and costs of different land use strategies under different scenarios of climate change.
Lambrinos, John	541 737 3484 lambrinj@hort.oregonstate.edu	HORT	http://hort.oregonstate.edu/faculty-staff/lambrinos Quantifying ecosystem services Invasive species Ecosystem engineering
Peachey, Ed	541 737 3152 peacheye@hort.oregonstate.edu	HORT	http://hort.oregonstate.edu/faculty-staff/peachey Weed management is a costly, but absolutely necessary chore, for Oregon's horticultural crop growers. This project researches existing and alternative weed control systems and materials, evaluating their comparative efficacy and economic efficiency, while seeking to avoid potentially adverse environmental effects. The aim is to find and communicate improved, less costly control systems that are environmentally benign.
Skinkis, Patty	541 737 1411 skinkisp@hort.oregonstate.edu	HORT	http://hort.oregonstate.edu/faculty-staff/skinkis With the rapid expansion of wine grape acreage in Oregon and the growing reputation of Oregon wines, this program is responding in support of the continued success of this valuable industry, while assuring that production practices are free from adverse environmental consequences. Applied research addresses production problems, while extensive education and outreach efforts are made to reach growers and vintners.
Stone, Alexandra	541 737 5461	HORT	http://hort.oregonstate.edu/faculty-staff/stone This work represents an overall IPM effort for irrigated vegetable crop systems. The current

	stonea@hort.oregonstate.edu		focus is on the costly problems of root rot in sweet corn and white mold in snap beans. Work with cooperating organic potato growers (OSPUD) is concentrating on late blight control and improved nitrogen management.
Owen, James	503 678 1264 jim.owen@oregonstate.edu	HORT NWREC	http://oregonstate.edu/dept/NWREC/Staff/Owen/Owen.html My research and extension program focuses on environmentally sound management practices in nursery production including substrate, nutrient, and water management with the goal of increasing crop efficiency. My goal is to assist nursery growers to increase production efficiency while minimizing environmental impact through basic and applied research that can be readily utilized. My position (FTE: 70% Research / 30% Extension) is to develop a progressive, forward-looking research and extension program for the Oregon nursery crop industry with an emphasis on research on environmental issues related to nursery production as well as biotic or abiotic factors limiting plant production or quality. This program will emphasize integrated container production systems: propagation, production, and post-production problems of plants in Oregon and the Pacific Northwest.
Shearer, Peter	541.386.2030 peter.shearer@oregonstate.edu	HORT, MCAREC	http://oregonstate.edu/dept/mcarec/staff/shearer My research focus is related to tree fruit arthropod management. We anticipate conducting research pertaining to shifts in arthropod abundance and community composition related to climate change.
Dreher, Theo	541-737-1834 theo.dreher@oregonstate.edu	MB	http://microbiology.science.oregonstate.edu/fac_Dreher Cyanobacterial blooms are predicted to be an increasing problem with global warming and increased human activities. Blooms can be toxic and disrupt balanced freshwater and estuarine ecosystems. We are conducting genetic identification of the cyanobacterial bloom populations to enable understanding the factors that control the boom and bust cycles of blooms.
Giovannoni, Stephen	541 737 1835 steve.giovannoni@oregonstate.edu	MB	http://www.mcb.oregonstate.edu/giovannoni/ We study marine microorganisms, which are an important factor in global climate change. Four specific facets of our work that are relevant to global climate change are: 1) mechanisms of oxidation of the ocean dissolved organic carbon pool, which rivals in mass the atmospheric CO2 pool; 2) long-term ecological change in ocean surface microbial communities, and their response to increasing stratification associated with global climate change; 3) the cycling of one carbon compounds, which includes greenhouse gases, in coastal marine systems; 4) microbial mechanisms of oxygen depletion in transient marine hypoxic zones that form on the Oregon shelf.
Kent, Michael	541-737-8652 Michael.kent@oregonstate.edu	MB	http://microbiology.science.oregonstate.edu/fac_Kent Dr. Kent is a parasitologist, and investigates impacts of parasites in a variety of hosts and systems. It is well recognized that many parasites become more abundant in correlation with warmer conditions. Three current research areas of Dr. Kent pertain to this: 1) study of impacts of parasites on the survival of coastal coho salmon and possible correlations to land use practices, 2) associations of parasite infections with prespawning mortality in Chinook salmon, and 3) seasonal and geographic distribution of the trichonstrongyle nematode, *Haemonchus*

			contortus, in sheep in Oregon. This nematode is very pathogenic to sheep, and tends to occur in warmer climates.
Bartholomew, Jerri	541-737-1856 bartholj@science.oregonstate.edu	MB/FW	http://microbiology.science.oregonstate.edu/fac_bartholomew Current research focuses on diseases of salmon in natural ecosystems, particularly in how disease cycles are affected by factors such as dams water management and climate change. We are developing models to describe the epidemiology of these diseases, to assess risks, and to predict the effects of water flow and temperature on disease interactions.
Mata-Gonzalez, Ricardo	541 737 7355 ricardo.matagonzalez@oregonstate.edu	REAM	http://oregonstate.edu/dept/range/faculty/mata-gonzalez • Groundwater and vegetation relationships in arid environments • Soil microbial inoculation as a tool to support re-vegetation in degraded ecosystems • Determination of cattle diets by DNA analysis in environmentally sensitive rangelands
Miller, Richard	541 737 1622 richard.miller@oregonstate.edu	REAM	http://oregonstate.edu/dept/range/faculty/rmiller Spatial and temporal dynamics of sagebrush and juniper woodlands in the Intermountain Region with an emphasis in fire.

NON-CAS PERSONNEL			
Daly, Christopher	541 737 5657 daly@nacse.org	Geosciences, COAS	http://www.prism.oregonstate.edu/staff/Chris.html Current research focus at Oregon State University is the development of practical and effective methods for the spatial analysis of climate across many temporal and spatial scales. I am the developer of PRISM, a spatial climate modeling system that is well-known and respected worldwide. I am founder and director of the PRISM Group, formerly the Spatial Climate Analysis Service, a group dedicated to producing state-of-the-science spatial climate analyses. The PRISM Group mission is threefold: (1) Products: develop useful and high-quality spatial climate maps and digital products; (2) Research: establish and maintain an innovative research program for spatial climate modeling and analysis; and (3) Education: establish and promote the emerging discipline of geospatial climatology, a powerful combination of climatology and spatial analysis.
Jones, Greg	541-552-6758 gjones@sou.edu	SOU	http://www.sou.edu/Geography/jones/jones.htm Research interests include climatology, hydrology, and agriculture; phenology of plant systems; biosphere and atmosphere interactions; climate change; and quantitative methods in spatial and temporal analysis. His dissertation was on the climatology of viticulture in Bordeaux, France with a focus on the spatial differences in grapevine phenology, grape composition and yield, and the resulting wine quality. He conducts applied research for the grape and wine industry in Oregon, has given hundreds of international, national, and region presentations on wine-

			related research, and is the author of numerous book chapters, reports, and articles on wine economics, grapevine phenology, site assessment methods for viticulture, climatological assessments of viticultural potential, and climate change.
Mote, Philip	541 737 5694 motep@onid.orst.edu	COAS	http://www.coas.oregonstate.edu/index.cfm?fuseaction=content.search&searchtype=people&detail=1&id=1057 *Terra Magazine* http://oregonstate.edu/terra/2009/spring/ climate change impacts, including variations in Pacific Northwest and national snowpacks, sea levels, water resources, precipitation and temperatures. He is a lead author of the fourth assessment report by the Intergovernmental Panel on Climate Change. OCCRI http://oregonstate.edu/research/multi/occri.html
Olszyk, David	541 754 4397 olszyk.dave@epa.gov	EPA	http://www.epa.gov/wed/pages/staff/olszyk.htm • Ecophysiological effects of environmental stresses on plants and terrestrial ecosystems • Plant gas exchange, water relations, growth and productivity, chemistry
Santelmann, Mary	541 737 1215 santelmm@geo.oregonstate.edu	Geosciences	http://www.geo.oregonstate.edu/people/faculty/santelmann.htm 1) Ecosystem response to human land use and management practices; use of alternative future scenarios combined with diverse evaluative approaches 2) Environmental and anthropogenic influences on species composition and species richness in agricultural, urban and wetland ecosystems, including effects of landscape composition and pattern on native biodiversity 3) Ecology and biogeochemistry of wetlands and riparian systems
Svejcar, Tony	541-573-8901 tony.svejcar@ars.usda.gov	USDA-ARS Burns, OR	http://www.ars.usda.gov/pandp/people/people.htm?personid=5495 http://www.ars.usda.gov/main/site_main.htm?modecode=53-60-00-00
Unsworth, Michael	541 737 5428 unswortm@coas.oregonstate.edu	COAS, AtS Emeritus	http://www.coas.oregonstate.edu/index.cfm?fuseaction=content.search&searchtype=people&detail=1&id=576Environmental Physics of plants and animals; vegetation-atmosphere interactions; water vapor and carbon dioxide exchange of forest ecosystems; flux estimation in complex topography.

Key words: climate change, carbon footprint, global change, ecosystem, global warming, environmental change
ORIN: *Oregon Invests!* http://oregoninvests.oregonstate.edu Research and Extension Accountability Database
OAP: *Oregon's Agricultural Progress* Magazine

Unit Acronyms for the Inventory

ANS	Animal Sciences
AREc	Agricultural and Resource Economics
AtS	Atmospheric Sciences (within COAS)
BEE	Biological and Ecological Engineering
BPP	Botany and Plant Pathology
CAS	College of Agricultural Sciences
CBARC	Columbia Basin Agricultural Research
COAS	College of Oceanic and Atmospheric Sciences
COMES	Coastal Oregon Marine Experiment Station
CSS	Crop and Soil Sciences
EOARC	Eastern Oregon Agricultural Research Center
EMT	Environmental and Molecular Toxicology
EPA	US Environmental Protection Agency
FW	Fisheries and Wildlife
HAREC	Hermiston Agricultural Research and Extension Center
HMSC	Hatfield Marine Science Center
HORT	Horticulture
IPPC	Integrated Plant Protection Center
MB	Microbiology
MCAREC	Mid-Columbia Agricultural Research and Extension Center
MES	Malheur Experiment Station
MMI	Marine Mammal Institute
NWREC	North Willamette Research and Extension Center
OCCRI	Oregon Climate Change Research Institute
REAM	Rangeland Ecology and Management
SOU	Southern Oregon University
USDA-ARS	US Department of Agriculture-Agricultural Research Service
USDA-NRI	US Department of Agriculture-National Research Initiative

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080410 http://agsci.oregonstate.edu/climate (Most current version will be at this link.)
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