CURRICULUM VITAE

Name: Osvaldo E. Sala
Address: Arizona State University
School of Life Sciences and School of Sustainability, Global Drylands Center
Tempe, AZ 85287, USA
E-mail Osvaldo.Sala@asu.edu Web Address http://sala.lab.asu.edu/

ACADEMIC TRAINING

BSc Agriculture, University of Buenos Aires, Argentina
MSc, Ecology, Colorado State University, USA
PhD, Ecology, Colorado State University, USA

AWARDS AND HONORS

2019 **American Geophysical Union,** Fellow
2019 **Regents Professor**, **Arizona State University**
2018 **Asociación Argentina de Ecología,** Honorary Member
2013 **Ecological Society of America,** Fellow
2009 **American Association for the Advancement of Science**, Fellow
2004 **Andrew D. White Professor-at-Large, Cornell University**
2003 **American Academy of Arts and Sciences**, USA, Elected Member
2003 **National Academy of Physical and Natural Sciences**, Buenos Aires, Elected Member
2002 **National Academy of Sciences**, Argentina, Elected Member
1993 **Guggenheim Fellow**

ACADEMIC EXPERIENCE

2024- Adjunct Faculty, School of Transborder Studies, **Arizona State University**
2024- Adjunct Faculty, Simon A. Levin Mathematical, Computational and Modeling Sciences Center, **Arizona State University**
2019- Regents' Professor, **Arizona State University**
2017- Director, Global Drylands Center, **Arizona State University**
2010- Julie A. Wrigley Professor of Life Sciences and Sustainability, **Arizona State University**
2010- Foundation Professor, **Arizona State University**
2005-10 Sloan Lindemann Distinguished Professor of Biology, **Brown University**
2005-08 Director, Environmental Change Initiative, **Brown University**
2005-08 Director, Center for Environmental Studies, **Brown University**
1991-04 Professor, Department of Ecology, School of Agronomy, **University of Buenos Aires**
1982-04 Research Scientist, **National Research Council**, Argentina
1999 Visiting Scholar, **Imperial College** at Silwood Park
1993-94 Visiting Scholar, Department of Biological Sciences, **Stanford University**, USA
1987-88 Chairman, Department of Ecology, School of Agronomy, **University of Buenos Aires**, Argentina

1987-90 Associate Professor, Department of Ecology, School of Agronomy, **University of Buenos Aires**, Argentina
1985-87 Research Scientist, Natural Resource Ecology Laboratory, **Colorado State University**, USA
1982-83 Assistant Professor, Department of Ecology, School of Agronomy, **University of Buenos Aires**, Argentina
1980-82 Assistant Professor, Range Science Department, **Colorado State University**, USA

PROFESSIONAL SERVICE

* **National Academies of Sciences, Engineering and Medicine**: Committee for the Independent Study on Potential Environmental Effects of Nuclear War. 2023-2025
* **National Academies of Sciences, Engineering and Medicine**: Committee to Advise the U.S. Global Change Research Program. 2021-
* Scientific Advisory Board, Agrotecnio, **Center of Excellence of Catalunya**, Spain, 2021-
* President, **Ecological Society of America**, 2018-2021
* Chair, External Advisory Board, School of Global Environmental Sustainability, **Colorado State University**, 2012-2018
* Co-Director, **SARAS** (South American Institute for Resilience and Sustainability Studies), 2010-16
* LTER (Long Term Ecological Research) National Advisory Board, **National Science Foundation,** 2010-13
* **Jury of** Ramon Margalef Prize**, Barcelona, Spain,** 2008-2011
* Scientific Advisory Board, **SCOPE Biofuels Project**, 2007-10
* **Rhode Island, Ocean Special Area Management Plan**, Science Advisory Task Force, 2008
* Advisor, **National Science Foundation**, Environmental Research and Education, 2007-09
* Member, Global Agenda Council, **World Economic Forum,** 2008-09
* President, **SCOPE**, Scientific Committee on Problems of the Environment, 2005-09
* External Evaluation **CREAF**, Universidad Autónoma de Barcelona, Spain, 2008.
* Member, Science Council, **The Nature Conservancy**, 2005-07
* Secretary General, **SCOPE**, Scientific Committee on Problems of the Environment, 2001-05
* Editorial Board of **Climate Research**, Inter Research, 1992-05
* Editor of **Global Change Biology**, Blackwell Scientific, 2003-05
* Editorial Board of **Ecosystems**, Springer Verlag, 1997-2004
* Editorial Board of **Oecologia**, Springer Verlag, 1994-2004
* Member at large Governing Board of the **Ecological Society of America**, 2002-04
* Chair of "**Red LatinoAmericana de Botánica,**" 2001-2004
* Scientific Committee for the **International Geosphere-Biosphere Programme (IGBP),** 1994-1996
* Scientific Steering committee of **Global Change and Terrestrial Ecosystems (GCTE)**, a core project of the International Geosphere Biosphere Programme, 1991-1999
* Leader, Global Change and Terrestrial Ecosystems **(GCTE)**. **Focus 4, Global Change and Ecological Complexity**, 1994-1999
* Steering committee of **America's Interhemisphere Geo-Biosphere Organization** (**AMIGO**), 1991-1995
* Scientific Advisory Committee of the **Biodiversity and Ecosystem Functioning: Soils and Sediment,** a program of the Scientific Committee on Problems of the Environment **(SCOPE)**, 1995-1999

* Scientific Advisory Committee of **Diversitas**, An International Programme of Biodiversity Science, IUBS, SCOPE, UNESCO, ICSU, IGBP-GCTE, and IUMS, 1995- 2001
* Scientific Steering Committee of **SCOPE**, Scientific Committee on Problems of the Environment, 1998-2001
* Scientific Steering Committee of "**Red LatinoAmericana de Botánica**"1999-2001
* Biology Panel, National Research Council of Argentina, 1989-1992
* Vice-President **Ecological Society of Argentina**, 1991-1993
* President **Ecological Society of Argentina**, 1997-1999 and 1999-2001
* Editorial Board of **Vegetatio**, Kluwer academic publishers, 1990-1996
* Editorial Board of **Global Change Biology**, Blackwell Scientific, 1994-2003

RESEARCH GRANT EXPERIENCE

2024-27 Woody-plant encroachment and its consequences on subsurface water redistribution. **Department of Energy** $1,000,000 (co-PI)
2023-28 Long-term ecosystem responses to directional changes in precipitation amount and variability in an arid grassland. **National Science Foundation** $ 670,000 (PI)
2022-24 Experimental Evaluation of Drought and Grazing Duration on Grassland Productivity **USDA** $155,067 (PI)
2020-24 LTER: Long-Term Research at the Jornada Basin (LTER VII). **National Science Foundation** $4,508,000 (co-PI)
2019-23 Ecological responses to rainfall across the Namib Desert climate gradient. **National Science Foundation** $299,994 (co-PI)
2018-23 Biogeochemical mismatches: decoupling of carbon, nitrogen and phosphorus cycles during drought **Australian Research Council** $289,642 (co-PI)
2018-23 Long-term ecosystem responses to directional changes in precipitation amount and variability in an arid grassland **National Science Foundation** $519,999 (PI)
2018-23 Forecasting dryland ecosystem vulnerability to change: a cross-system assessment of vegetation and process responses to disturbance and climate variability on DoD lands **SERDP-DOD** $730,851 (co-PI)
2018-18 Looking for a Pulse in Dryland Ecosystems: Evaluating the Pulse Dynamics Paradigm Forty Years after its Creation **New Phytologist Trust** $10,000 (co-PI)
2016-21 Exotic grass and woody-plant encroachment in Southwestern rangelands: Mechanisms of invasion and opportunities of containment **USDA-NIFA-AFRI** (PI) $500,000
2015-20 Water Availability Controls on Above-Belowground Productivity Partitioning: Herbivory versus Plant Response **National Science Foundation**, (PI) $718,935
2014-21 Drought-Net: A global network to assess terrestrial ecosystem sensitivity to drought **National Science Foundation**, (co-PI) $499,992
2012-13 Abrupt grass-woodland transitions: Determinants and consequences for ecosystem services **National Science Foundation**, $49,798
2012-18 LTER: Long-Term Research at the Jornada Basin (LTER VI) **National Science Foundation**, (co-PI) $5,880,000
2012-14 Woody-plant encroachment: Degradation or a shift in the portfolio of ecosystem services? **Keck Foundation**, $75,000
2009-13 Precipitation Controls of Carbon and Nitrogen Cycles in Arid-Semiarid Ecosystems **US National Science Foundation**, $799,439

2009-10 Vegetation structure constraints on ANPP in arid ecosystems: assessing the meristem limitation hypothesis **US National Science Foundation**, $14,804

2004-07 Global change and the carbon cycle in arid and semiarid ecosystems: Experiments in the Patagonian steppe. **University of Buenos Aires**

2004-07 Spatial and temporal controls of carbon cycling in arid and semiarid ecosystems **PICT, Agencia Nacional de Promoción Científica y Tecnológica**

2002-04 Ecophysiological consequences of infrequent massive flowering of monocarpic bamboo grasses (*Chusquea* spp) in temperate and tropical South America **US National Science Foundation**

2001-02 Biodiversity effect on ecosystem functioning: Diversity of species, functional groups, patches, and resources. **University of Buenos Aires**

2000-03 Global change effects on primary production in arid ecosystems: The Patagonian steppe as a model ecosystem. PICT, **Agencia Nacional de Promoción Científica y Tecnológica**

1999-06 The role of biodiversity and climate in the functioning of ecosystems: A comparative study of grasslands, savannas, and forests. **InterAmerican Institute for Global Change Research**

1998-01 Ecosystem responses to stratospheric ozone reduction in southernmost South America. **US National Science Foundation**

1998-00 Biodiversity effects on the functioning of ecosystems: Experiments and models at two scales in the Patagonian steppe. **UBA**

1998-00 The effect of global change on the functioning of the Patagonian steppe ecosystem. **Agencia Nacional de Promoción Científica y Tecnológica**

1998-01 Management technology to increase production and decrease erosion in grasslands and steppes. **Agencia Nacional de Promoción Científica y Tecnológica**

1997-01 Production and decomposition controls in the Patagonian steppe. **CONICET**

1997 Global Change Effects on Biodiversity and Ecosystem Functioning: Manipulation of a Keystone Process. **InterAmerican Institute for Global Change Research**

1996 Workshop "Biodiversity Scenarios" at UC Santa Barbara, California, USA. June 1996. **InterAmerican Institute for Global Change Research** and **National Center for Ecological Analysis and Synthesis UC Santa Barbara**

1995 Workshop "Global Change and Ecological Complexity" Cedar Creek, Minnesota, USA, September 1995. **Electric Power Research Institute** and **International Geosphere Biosphere Programme**

1995 Workshop "Global Change Impacts on Latin American Terrestrial Ecosystems and Feedbacks to the Globe" Buenos Aires March 1995. **Inter-American Institute for Global Change Research**

1995-98 Ecosystem Responses to Stratospheric Ozone Reduction in Southernmost South America, **US National Science Foundation**

1994-97 Seasonal dynamics of primary production, **UBA**

1994-97 The role of small rainfall events on nitrogen mineralization, **UBA**

1994-97 Constraints on Production and Decomposition in Temperate Semiarid Grasslands, **US National Science Foundation**

1992-95 Sustainability of natural and cultivated systems Inter American Development Bank-**CONICET**

1991-93 Environmental and management effects on plant available water in the Patagonian steppe, **UBA**

1991-93 Nutrient partitioning between shrubs and grasses in the Patagonian steppe, **UBA**

1991-93 Cyclical dynamics of vegetation patches in the Patagonian steppe, **UBA**
1991 Argentina-Chile scientific collaborative award. **Fundación Antorchas**
1991 Competition and facilitation between grasses and shrubs **Fundación Antorchas**
1989-93 Resource partitioning among grasses and shrubs in semi-arid regions, **CONICET**
1989-93 Cyclical succession in the Patagonian steppe. **CONICET**
1988-89 Water dynamics in the Patagonian steppe: A simulation modeling approach **UBA**
1988-89 Water partitioning among grasses and shrubs in the Patagonian arid steppe, **UBA**
1987-88 Grass-shrub interactions in two semi-arid regions, **US National Science Foundation**
1985-88 The effect of defoliation on the community dynamics of a grassland of the Flooding Pampas. **CONICET**
1985-88 Resource partitioning among life forms of the arid steppes. **CONICET**
1983-84 Resource partitioning among life forms in Southern Patagonia. **UBA**
1983-84 Convergence in the partitioning of resources among functional types in two semiarid regions, **US National Science Foundation-CONICET**

GRADUATE STUDENTS AND POST DOCTORAL FELLOWS

Graduate Students:
Lily Nichols (exp 2026)
Annessa Foss (exp 2025)
Madeline Buhman 2024
Chris Vito (exp 2025)
Courtney Currier, 2023
Bryce Sutter, 2022
Luis Weber, 2021
Svenja Wagner, 2019
Amy Wiedenfeld, 2018
Aaron Boydston, 2018
Owen McKenna, 2016
Laureano Gherardi, 2014
Lara Reichmann, 2011
Pedro Flombaum, 2007
Marselle Alexander, 2007
Victoria Marchesini, 2006
M. Laura Yahdjian, 2004
Verónica Pancotto, 2004
Pablo Roset, 2000
Esteban Jobbágy, 1998
Adriana Beltrán, 1997
José M. Paruelo, 1991
Martín R. Aguiar, 1991
Rodolfo A. Golluscio, 1990

Postdoctoral fellows:
Mary Linabury 2025-
Gabriella Mizell 2025-
Nichole Glass 2022-25

Mónica Ladro de Guevara 2018-20
Laureano Gherardi, 2015-21
José Anadón, 2012-13
Lara Reichmann, 2011-12
Erika Sudderth, 2009
M. Laura Yahdjian, 2005
Elisabeth Huber-Sannwald, 1996-97
Patricia Folgarait, 1995-97
Silvia Cid, 1995-96
Miguel A. Brizuela, 1991-94

TEACHING EXPERIENCE

Classes currently being taught at Arizona State University:

Ecosystem Ecology (BIO 422/598 SOS 598)
Human Impact on Ecosystem Functioning (SOS494/598; BIO494/598)
Sustainability Science (SOS/ BIO 591)
Life Sciences Career Paths (BIO 189)
Sustainability Science: Interactions between Human and Environmental Systems (SOS 526)

Classes taught in the past:

Human Impact on Ecosystem Functioning (BIOL1490), Brown University
Biodiversity (BIOL2430), Brown University
Topics in Conservation Science (BIOL1940), Brown University
Ecology, UBA
Ecosystem Ecology, UBA Plant Physiology, UBA
Range Ecophysiology (RS 351), Colorado State University
Functional Diversity in Ecosystems, University of Concepción, Chile
Global Change and Biodiversity, UNAM, Mexico

PUBLICATIONS (H-index = 114)

260. Ohlert, T., M. D. Smith, S. L. Collins, A. K. Knapp, J. S. Dukes, O. Sala, K. D. Wilkins, S. M. Munson, M. I. Anderson, M. L. Avolio, A. Chen, M. T. Hayden, M. C. Holdrege, I. J. Slette, P. Wilfahrt, C. Beier, L. H. Fraser, A. Jentsch, M. E. Loik, Y. Luo, F. T. Maestre, R. P. Phillips, S. A. Power, L. Yahdjian, Q. Yu, A. Chen, A. J. Felton, L. A. Gherardi, N. J. Lyon, H. Abdoli, M. Abedi, J. Alberti, A. I. Arroyo, H. Asbjornsen, H. Auge, S. Bachle, M. Bahn, D. C. Bartholomew, A. Batbaatar, T. L. Bauerle, K. H. Beard, K. Behn, I. Beil, L. Biancari, I. Blindow, V. F. Bondaruk, E. T. Borer, E. W. Bork, C. M. Bruschetti, K. M. Byrne, J. F. C. Jr, D. A. Calvo, M. Carbognani, C. N. Carlyle, K. Castillioni, M. Castillo-Garcia, M. H. Chandregowda, S. X. Chang, J. Chieppa, A. C. Churchill, M. V. Cianciaruso, A. L. Cordeiro, S. A. O. Cousins, D. F. Cusack, S. Dahlke, P. Daleo, L. H. Dietterich, M. Dubbert, N. Eisenhauer, T. G. W. Forte, F. A. Funk, D. Galiano, A. C. Greenville, L. Han, S. V. Haugum, Y. Hautier, A. Hector, H. A. L. Henry, D. Hoss, F. Isbell, S. E. Jordan, Y. Ke, E. F. Kelly, S. E. Koerner, J. Kreyling, G. Kröel-Dulay, A. I. Kröpfl, A. Kübert, A. Kulmatiski, E. G. Lamb, K. S. Larsen, S. Lee, S. P. Limbu, A. Linstädter, S. Liu, G. Longo, A. Loydi, J. Luan, F. C. Lubbe, A. V. Malyshev, C. D. McIntire, D. B. Metcalfe, M. V. Mokoka, A. S. Mori, E. Mudongo, G. S. Newman, U. N. Nielsen, R. Ochoa-Hueso, R. C. O'Connor, R. Ogaya, G. R. Oñatibia, I. Orbán, B. B. Osborne, R. Otfinowski, M. Pärtel, J. Pascual, J. Peñuelas, P. L. Peri, D. S. Pescador, G. Peter, A. Petraglia, C. Picon-Cochard, V. D. Pillar, J. M. Piñeiro-Guerra, L. W. Ploughe, R. M. Plowes, C. Portales-Reyes, S. M. Prober, Y. Pueyo, G. Rahmati, S. C. Reed, D. A. Rodríguez, W. E. Rogers, C. Roscher, D. W. Rowley, A. M. Sánchez, B. A. Santos, M. P. Schellenberg, M. Scherer-Lorenzen, E. W. Seabloom, R. Shen, B. Shi, L. Souza, A. Stampfli, R. J. Standish, M. Sternberg, W. Sun, M. Sünnemann, M. Tedder, T. J. Terry, P. Thorvaldsen, K. Tielbörger, M. Tissink, M. A. Vadeboncoeur, A. Valdecantos, S. Wanke, G. M. Wardle, C. Wei, C. Werner, G. Wiehl, J. L. Williams, A. A. Wolf, H. Wu, C. Xu, X. Yang, Y. Yang, J. L. Yost, A. L. Young, P. Yue, J. M. Zeberio, M. Zeiter, H. Zhang, J. Zhu, and X. Zuo. 2025. Drought intensity and duration interact to magnify losses in primary productivity. **Science** Pages 284-289. PDF

259. **Sala, O. E.**, and J. D. Anadón. 2025. Destocking as a global phenomenon. Pages 743-746 *in* XII International Rangeland Congress, Adelaide, Australia. PDF

258. Committee on Independent Study on Potential Environmental Effects of Nuclear War, Board on Atmospheric Sciences and Climate, Nuclear and Radiation Studies Board, Division on Earth and Life Studies, and National Academies of Sciences, Engineering, and Medicine. 2025. Potential Environmental Effects of Nuclear War. Page 27515. National Academies Press, Washington, D.C. PDF

257. Young, K. E., **O. Sala**, A. Darrouzet-Nardi, C. Tucker, R. Finger-Higgens, M. Starbuck, and S. C. Reed. 2025. Biocrust Mosses and Cyanobacteria Exhibit Distinct Carbon Uptake Responses to Variations in Precipitation Amount and Frequency. **Ecology Letters** 28. PDF

256. Eldridge, D. J., and **O. Sala**. 2025. Prisms Drylands : Synthesising multiple disciplines, themes and management practices across Earth's drylands. **Cambridge Prisms: Drylands** 2:e1. PDF

255. Jordan, S. E., W. K. Smith, and **O. E. Sala**. 2024. Ecosystem service indicators on military-managed drylands in the Western United States. **Ecological Applications**. PDF

254. Gross, N., F. T. Maestre, P. Liancourt, M. Berdugo, R. Martin, B. Gozalo, V. Ochoa, M. Delgado-Baquerizo, V. Maire, H. Saiz, S. Soliveres, E. Valencia, D. J. Eldridge, E. Guirado, F. Jabot, S. Asensio, J. J. Gaitán, M. García-Gómez, P. Martínez, J. Martínez-Valderrama, B. J. Mendoza, E. Moreno-Jiménez, D. S. Pescador, C. Plaza, I. S. Pijuan, M. Abedi, R. J. Ahumada, F. Amghar, A. I. Arroyo, K. Bahalkeh, L. Bailey, F. Ben Salem, N. Blaum, B. Boldgiv, M. A. Bowker, C. Branquinho, L. van den Brink, C. Bu, R. Canessa, A. del P. Castillo-Monroy, H. Castro, P. Castro, R. Chibani, A. A. Conceição, A. Darrouzet-Nardi, Y. C. Davila, B. Deák, D. A. Donoso, J. Durán, C. Espinosa, A. Fajardo, M. Farzam, D. Ferrante, J. Franzese, L. Fraser, S. Gonzalez, E. Gusman-Montalvan, R. M. Hernández-Hernández, N. Hölzel, E. Huber-Sannwald, O. Jadan, F. Jeltsch, A. Jentsch, M. Ju, K. F. Kaseke, L. Kindermann, P. le Roux, A. Linstädter, M. A. Louw, M. Mabaso, G. Maggs-Kölling, T. P. Makhalanyane, O. M. Issa, A. J. Manzaneda, E. Marais, P. Margerie, F. M. Hughes, J. V. S. Messeder, J. P. Mora, G. Moreno, S. M. Munson, A. Nunes, G. Oliva, G. R. Oñatibia, G. Peter, Y. Pueyo, R. E. Quiroga, E. Ramírez-Iglesias, S. C. Reed, P. J. Rey, V. M. Reyes Gómez, A. Rodríguez, V. Rolo, J. G. Rubalcaba, J. C. Ruppert, **O. Sala**, A. Salah, P. J. Sebei, I. Stavi, C. Stephens, A. L. Teixido, A. D. Thomas, H. L. Throop, K. Tielbörger, S. Travers, S. Undrakhbold, J. Val, O. Valkó, F. Velbert, W. Wamiti, L. Wang, D. Wang, G. M. Wardle, P. Wolff, L. Yahdjian, R. Yari, E. Zaady, J. M. Zeberio, Y. Zhang, X. Zhou, and Y. Le Bagousse-Pinguet. 2024. Unforeseen plant phenotypic diversity in a dry and grazed world. **Nature** 632:808-814. PDF

253. Biancari, L., M. R. Aguiar, D. J. Eldridge, G. R. Oñatibia, Y. Le Bagousse-Pinguet, H. Saiz, N. Gross, A. T. Austin, V. Ochoa, B. Gozalo, S. Asensio, E. Guirado, E. Valencia, M. Berdugo, C. Plaza, J. Martínez-Valderrama, B. J. Mendoza, M. García-Gómez, M. Abedi, R. J. Ahumada, J. M. Alcántara, F. Amghar, J. D. Anadón, V. Aramayo, T. Arredondo, M. Y. Bader, K. Bahalkeh, F. Ben Salem, N. Blaum, B. Boldgiv, M. Bowker, C. Branquinho, C. Bu, B. Byambatsogt, D. A. Calvo, A. P. Castillo Monroy, H. Castro, P. Castro-Quezada, R. Chibani, A. A. Conceição, C. M. Currier, D. A. Donoso, A. Dougill, H. Ejtehadi, C. I. Espinosa, A. Fajardo, M. Farzam, D. Ferrante, L. H. Fraser, J. J. Gaitán, L. A. Gherardi, E. Gusmán-Montalván, R. M. Hernández, Y. Pueyo, R. Emiliano Quiroga, S. C. Reed, P. J. Rey, A. Rodríguez, L. B. Rodríguez, V. Rolo, J. C. Ruppert, **O. Sala**, A. Salah, I. Stavi, C. R. A Stephens, A. M. Swemmer, A. L. Teixido, A. D. Thomas, H. L. Throop, K. Tielbörger, S. K. Travers, L. van den Brink, V. Wagner, W. Wamiti, D. Wang, L. Wang, P. Wolff, L. Yahdjian, E. Zaady, and F. T. Maestre. 2024. Drivers of woody dominance across global drylands. **Science** Page 43. PDF

252. Terry, T. J., **O. E. Sala**, S. Ferrenberg, S. C. Reed, B. Osborne, S. Jordan, S. Lee, and P. B. Adler. 2024. Disturbance amplifies sensitivity of dryland productivity to precipitation variability. **Science Advances** 10. PDF

251. Díaz-Martínez, P., Maestre, F.T., Moreno-Jiménez, E., Delgado-Baquerizo, M., Eldridge, D.J., Saiz, H., Gross, N., Le Bagousse-Pinguet, Y., Gozalo, B., Ochoa, V., Guirado, E., García-Gómez, M., Valencia, E., Asensio, S., Berdugo, M., Martínez-Valderrama, J., Mendoza, B.J., García-Gil, J.C., Zaccone, C., Panettieri, M., García-Palacios, P., Fan, W., Benavente-Ferraces, I., Rey, A., Eisenhauer, N., Cesarz, S., Abedi, M., Ahumada, R.J., Alcántara, J.M., Amghar, F., Aramayo, V., Arroyo, A.I., Bahalkeh, K., Ben Salem, F., Blaum, N., Boldgiv, B., Bowker, M.A., Bran, D., Branquinho, C., Bu, C., Cáceres, Y., Canessa, R., Castillo-Monroy, A.P., Castro, I., Castro-Quezada, P., Chibani, R., Conceição, A.A., Currier, C.M., Darrouzet-Nardi, A., Deák, B., Dickman, C.R., Donoso, D.A., Dougill, A.J., Durán, J., Ejtehadi, H., Espinosa, C., Fajardo, A., Farzam, M., Ferrante, D., Fraser, L.H., Gaitán, J.J., Gusman Montalván, E., Hernández-Hernández, R.M., von Hessberg, A., Hölzel, N., Huber-Sannwald, E., Hughes, F.M., Jadán-Maza, O., Geissler, K., Jentsch, A., Ju, M., Kaseke, K.F., Kindermann, L., Koopman, J.E., Le Roux, P.C., Liancourt, P., Linstädter, A., Liu, J., Louw, M.A., Maggs-Kölling, G., Makhalanyane, T.P., Issa, O.M., Marais, E., Margerie, P., Mazaneda, A.J., McClaran, M.P., Messeder, J.V.S., Mora, J.P., Moreno, G., Munson, S.M., Nunes, A., Oliva, G., Oñatibia, G.R., Osborne, B., Peter, G., Pueyo, Y., Quiroga, R.E., Reed, S.C., Reyes, V.M., Rodríguez, A., Ruppert, J.C., **Sala, O.**, Salah, A., Sebei, J., Sloan, M., Solongo, S., Stavi, I., Stephens, C.R.A., Teixido, A.L., Thomas, A.D., Throop, H.L., Tielbörger, K., Travers, S., Val, J., Valko, O., van den Brink, L., Velbert, F., Wamiti, W., Wang, D., Wang, L., Wardle, G.M., Yahdjian, L., Zaady, E., Zeberio, J.M., Zhang, Y., Zhou, X., Plaza, C., 2024. Vulnerability of mineral-associated soil organic carbon to climate across global drylands. **Nature Climate Change** 14, 976-982. PDF

250. Eldridge, D. J., J. Ding, J. Dorrough, M. Delgado-Baquerizo, **O. Sala**, N. Gross, Y. Le Bagousse-Pinguet, M. Mallen-Cooper, H. Saiz, and S. Asensio. 2024. Hotspots of biogeochemical activity linked to aridity and plant traits across global drylands. **Nature Plants** 1-11, PDF

249. Smith, M. D., K. D. Wilkins, M. C. Holdrege, P. Wilfahrt, S. L. Collins, A. K. Knapp**, O. E. Sala**, J. S. Dukes, R. P. Phillips, L. Yahdjian, L. A. Gherardi, T. Ohlert, C. Beier, L. H. Fraser, A. Jentsch, M. E. Loik, F. T. Maestre, S. A. Power, Q. Yu, A. J. Felton, S. M. Munson, Y. Luo, H. Abdoli, M. Abedi, C. L. Alados, J. Alberti, M. Alon, H. An, B. Anacker, M. Anderson, H. Auge, S. Bachle, K. Bahalkeh, M. Bahn, A. Batbaatar, T. Bauerle, K. H. Beard, K. Behn, I. Beil, L. Biancari, I. Blindow, V. F. Bondaruk, E. T. Borer, E. W. Bork, C. M. Bruschetti, K. M. Byrne, J. F. Cahill, D. A. Calvo, M. Carbognani, A. Cardoni, C. N. Carlyle, M. Castillo-Garcia, S. X. Chang, J. Chieppa, M. V. Cianciaruso, O. Cohen, A. L. Cordeiro, D. F. Cusack, S. Dahlke, P. Daleo, C. M. D'Antonio, L. H. Dietterich, T. S. Doherty, M. Dubbert, A. Ebeling, N. Eisenhauer, F. M. Fischer, T. G. W. Forte, T. Gebauer, B. Gozalo, A. C. Greenville, K. G. Guidoni-Martins, H. J. Hannusch, S. V. Haugum, Y. Hautier, M. Hefting, H. A. L. Henry, D. Hoss, O. Iribarne, F. Isbell,

Y. Johnson, S. Jordan, E. F. Kelly, K. Kimmel, J. Kreyling, G. Kröel-Dulay, J. Ingrisch, A. Kröpfl, A. Kübert, A. Kulmatiski, E. G. Lamb, K. S. Larsen, J. Larson, C. V. Leder, A. Linstädter, J. Liu, S. Liu, A. G. Lodge, G. Longo, A. Loydi, J. Luan, J. Lawson, F. C. Lubbe, C. Macfarlane, K. Mackie-Haas, A. V. Malyshev, A. Maturano-Ruiz, T. Merchant, D. B. Metcalfe, A. S. Mori, E. Mudongo, G. S. Newman, U. N. Nielsen, D. Nimmo, Y. Niu, P. Nobre, R. C. O'Connor, R. Ogaya, G. R. Oñatibia, I. Orbán, B. Osborne, R. Otfinowski, M. Pärtel, J. Penuelas, P. L. Peri, G. Peter, A. Petraglia, C. Picon-Cochard, V. D. Pillar, J. M. Piñeiro-Guerra, L. W. Ploughe, R. M. Plowes, C. Portales-Reyes, S. M. Prober, Y. Pueyo, S. C. Reed, E. G. Ritchie, D. A. Rodríguez, W. E. Rogers, C. Roscher, A. M. Sánchez, B. A. Santos, M. C. Scarfó, E. W. Seabloom, B. Shi, L. Souza, A. Stampfli, R. J. Standish, M. Sternberg, W. Sun, M. Sünnemann, M. Tedder, P. Thorvaldsen, D. Tian, K. Tielbörger, A. Valdecantos, L. van den Brink, V. Vandvik, M. R. Vankoughnett, L. G. Velle, C. Wang, Y. Wang, G. M. Wardle, C. Werner, C. Wei, G. Wiehl, J. L. Williams, A. A. Wolf, M. Zeiter, F. Zhang, J. Zhu, N. Zong, and X. Zuo. 2024. Extreme drought impacts have been underestimated in grasslands and shrublands globally. **Proceedings of the National Academy of Sciences of the United States of America** 121. PDF

248. Flombaum, P., L. Vivanco, F. Cabrera, and **O. E. Sala**. 2024. Grassland Communities and Ecosystems. **Reference Module in Life Sciences. Elsevier** 382-390. PDF

247. Eldridge, D. J., and **O. Sala**. 2023. Australia's carbon plan disregards evidence. **Science** 382:894-894. PDF

246. Briske, D. D., S. R. Archer, E. Burchfield, W. Burnidge, J. D. Derner, H. Gosnell, J. Hatfield, C. E. Kazanski, M. Khalil, T. J. Lark, P. Nagler, **O. Sala**, N. F. Sayre, and K. R. Stackhouse-Lawson. 2023. Supplying ecosystem services on US rangelands. **Nature Sustainability** 6:1524-1532. PDF

245. Isbell, F., P. Balvanera, A. S. Mori, J. S. He, J. M. Bullock, G. R. Regmi, E. W. Seabloom, S. Ferrier, **O. E. Sala**, N. R. Guerrero-Ramírez, J. Tavella, D. J. Larkin, B. Schmid, C. L. Outhwaite, P. Pramual, E. T. Borer, M. Loreau, T. C. Omotoriogun, D. O. Obura, M. Anderson, C. Portales-Reyes, K. Kirkman, P. M. Vergara, A. T. Clark, K. J. Komatsu, O. L. Petchey, S. R. Weiskopf, L. J. Williams, S. L. Collins, N. Eisenhauer, C. H. Trisos, D. Renard, A. J. Wright, P. Tripathi, J. Cowles, J. E. K. Byrnes, P. B. Reich, A. Purvis, Z. Sharip, M. I. O'Connor, C. E. Kazanski, N. M. Haddad, E. H. Soto, L. E. Dee, S. Díaz, C. R. Zirbel, M. L. Avolio, S. Wang, Z. Ma, J. Liang, H. C. Farah, J. A. Johnson, B. W. Miller, Y. Hautier, M. D. Smith, J. M. H. Knops, B. J. E. Myers, Z. V. Harmáčková, J. Cortés, M. B. J. Harfoot, A. Gonzalez, T. Newbold, J. Oehri, M. Mazón, C. Dobbs, and M. S. Palmer. 2023. Expert perspectives on global biodiversity loss and its drivers and impacts on people. **Frontiers in Ecology and the Environment** 21:94-103. PDF

244. Maestre, F. T., Y. Le Bagousse-Pinguet, M. Delgado-Baquerizo, D. J. Eldridge, H. Saiz, M. Berdugo, B. Gozalo, V. Ochoa, E. Guirado, M. García-Gómez, E. Valencia, J. J. Gaitán, S. Asensio, B. J. Mendoza, J. Martínez-Valderrama, E. Moreno-Jiménez, **O. Sala**, M. Abedi, N. Ahmadian, C. L. Alados, V. Aramayo, F.

Amghar, T. Arredondo, R. J. Ahumada, K. Bahalkeh, F. B. Salem, N. Blaum, B. Boldgiv, M. A. Bowker, D. Bran, C. Bu, R. Canessa, A. P. Castillo-Monroy, H. Castro, I. Castro, P. Castro-Quezada, R. Chibani, A. A. Conceição, C. M. Currier, A. Darrouzet-Nardi, B. Deák, D. A. Donoso, A. J. Dougill, J. Durán, B. Erdenetsetseg, C. I. Espinosa, A. Fajardo, M. Farzam, D. Ferrante, A. S. K. Frank, L. H. Fraser, L. A. Gherardi, A. C. Greenville, C. A. Guerra, E. Gusmán-Montalvan, R. M. Hernández-Hernández, N. Hölzel, E. Huber-Sannwald, F. M. Hughes, O. Jadán-Maza, F. Jeltsch, A. Jentsch, K. F. Kaseke, M. Köbel, J. E. Koopman, C. V. Leder, A. Linstädter, P. C. Le Roux, X. Li, P. Liancourt, J. Liu, M. A. Louw, G. Maggs-Kölling, T. P. Makhalanyane, O. Malam Issa, A. J. Manzaneda, E. Marais, J. P. Mora, G. Moreno, S. M. Munson, A. Nunes, G. Oliva, G. R. Oñatibia, G. Peter, M. O. D. Pivari, Y. Pueyo, R. Emiliano Quiroga, S. Rahmanian, S. C. Reed, P. J. Rey, B. Richard, A. Rodríguez, V. Rolo, J. G. Rubalcaba, J. C. Ruppert, A. Salah, M. A. Schuchardt, S. Spann, I. Stavi, C. R. A. Stephens, A. M. Swemmer, A. L. Teixido, A. D. Thomas, H. L. Throop, K. Tielbörger, S. Travers, J. Val, O. Valkó, L. Van Den Brink, S. V. Ayuso, F. Velbert, W. Wamiti, D. Wang, L. Wang, G. M. Wardle, L. Yahdjian, E. Zaady, Y. Zhang, X. Zhou, B. K. Singh, and N. Gross. 2022. Grazing and ecosystem service delivery in global drylands. **Science** 378:915-920. PDF

243. Louw, N., L. A. Gherardi, **O. E. Sala**, and Y. A. Chung. 2022. Dryland soil mycobiome response to long-term precipitation variability depends on host type. **Journal of Ecology** 110:2984-2997. PDF

242. Garcia-Pichel, F., and **O. Sala**. 2022. Expanding the Pulse-Reserve Paradigm to Microorganisms on the Basis of Differential Reserve Management Strategies. **Bioscience** 72:638-650. PDF

241. Currier, C. M., and **O. E. Sala**. 2022. Precipitation versus temperature as phenology controls in drylands. **Ecology** 103. PDF

240. Brown, R. F., **O. E. Sala**, R. L. Sinsabaugh, and S. L. Collins. 2022. Temporal effects of monsoon rainfall pulses on plant available nitrogen in a Chihuahuan Desert grassland. **Journal of Geophysical Research: Biogeosciences** 127:1-15. PDF

239. Pérez-Ruiz, E. R., E. R. Vivoni, and **O. E. Sala**. 2022. Seasonal carryover of water and effects on carbon dynamics in a dryland ecosystem. **Ecosphere** 13. PDF

238. Davis, A. R., K. R. Hultine, **O. E. Sala**, and H. L. Throop. 2022. Seedling responses to soil moisture amount versus pulse frequency in a successfully encroaching semi-arid shrub. **Oecologia** 1-11. PDF

237. **Sala, O**. 2022. Open access is a misnomer. **Frontiers in Ecology and the Environment** 20:71. PDF

236. Ankrom, K. E., A. L. C. Franco, S. J. Fonte, L. A. Gherardi, C. M. de Tomasel, C. Wepking, P. Guan, S. Cui, **O. E. Sala**, and D. H. Wall. 2022. Ecological maturity and stability of nematode communities in response to precipitation manipulations in grasslands. **Applied Soil Ecology** 170. PDF

235. Weber-Grullon, L., L. Gherardi, W. A. Rutherford, S. R. Archer, and **O. E. Sala**. 2022. Woody-plant encroachment: Precipitation, herbivory, and grass-competition interact to affect shrub recruitment. **Ecological Applications** 32. PDF

234. Franco, A. L. C., P. Guan, S. Cui, C. M. de Tomasel, L. A. Gherardi, **O. E. Sala**, and D. H. Wall. 2022. Precipitation effects on nematode diversity and carbon footprint across grasslands. **Global Change Biology** 28:2124-2132. PDF

233. Hudson, A. R., D. P. C. Peters, J. M. Blair, D. L. Childers, P. T. Doran, K. Geil, M. Gooseff, K. L. Gross, N. M. Haddad, M. A. Pastore, J. A. Rudgers, **O. Sala**, E. W. Seabloom, and G. Shaver. 2022. Cross-Site Comparisons of Dryland Ecosystem Response to Climate Change in the US Long-Term Ecological Research Network. **BioScience** 72:889-907. PDF

232. Peters, D. P. C., H. M. Savoy, S. Stillman, H. Huang, A. R. Hudson, **O. E. Sala**, and E. R. Vivoni. 2021. Article plant species richness in multiyear wet and dry periods in the Chihuahuan desert. **Climate** 9. PDF

231. Weathers, K. C., D. Ojima, S. K. Collinge, and **O. Sala**. 2021. Leveraging the anthropause. **Frontiers in Ecology and the Environment** 19:315. PDF

230. Iwaniec, D. M., M. Gooseff, K. N. Suding, D. Samuel Johnson, D. C. Reed, D. P. C. Peters, B. Adams, J. E. Barrett, B. T. Bestelmeyer, M. C. N. Castorani, E. M. Cook, M. J. Davidson, P. M. Groffman, N. P. Hanan, L. F. Huenneke, P. T. J. Johnson, D. M. McKnight, R. J. Miller, G. S. Okin, D. L. Preston, A. Rassweiler, C. Ray, **O. E. Sala**, R. L. Schooley, T. Seastedt, M. J. Spasojevic, and E. R. Vivoni. 2021. Connectivity: insights from the U.S. Long Term Ecological Research Network. **Ecosphere** 12. PDF

229. Yahdjian, L., **O. E. Sala**, J. M. Piñeiro-Guerra, A. K. Knapp, S. L. Collins, R. P. Phillips, and M. D. Smith. 2021. Why coordinated distributed experiments should go global. **BioScience** 71:918-927. PDF

228. Gherardi, L. A., and **O. E. Sala**. 2020. Global patterns and climatic controls of belowground net carbon fixation. **Proceedings of the National Academy of Sciences**. 117.33:20038-20043 PDF

227. Schreiner-McGraw, A. P., E. R. Vivoni, H. Ajami, **O. E. Sala**, H. L. Throop, and D. P. Peters. 2020. Woody plant encroachment has a larger impact than climate change on Dryland Water Budgets. **Scientific Reports** 10:1-9. PDF

226. Ankrom, K. E., A. L. Franco, S. J. Fonte, L. A. Gherardi, C. M. de Tomasel, W. S. Andriuzzi, E. A. Shaw, **O. E. Sala**, and D. H. Wall. 2020. Ecto-and endoparasitic nematodes respond differently across sites to changes in precipitation. **Oecologia** 193:761-771. PDF

225. Franco, A. L., L. A. Gherardi, C. M. de Tomasel, W. S. Andriuzzi, K. E. Ankrom, E. M. Bach, P. Guan, **O. E. Sala**, and D. H. Wall. 2020. Root herbivory controls the effects of water availability on the partitioning between above and belowground grass biomass. **Functional Ecology**. 34(11):2403-2410 PDF

224. Hoover, D. L., B. Bestelmeyer, N. B. Grimm, T. E. Huxman, S. C. Reed, **O. Sala**, T. R. Seastedt, H. Wilmer, and S. Ferrenberg. 2020. Traversing the Wasteland: A Framework for Assessing Ecological Threats to Drylands. **Bioscience** 70:35-47. PDF

223. Maurer, G. E., A. J. Hallmark, R. F. Brown, **O. E. Sala**, and S. L. Collins. 2020. Sensitivity of primary production to precipitation across the United States. **Ecology Letters** 23:527-536. PDF

222. Andriuzzi, W. S., A. L. Franco, K. E. Ankrom, S. Cui, C. M. de Tomasel, P. Guan, L. A. Gherardi, **O. E. Sala**, and D. H. Wall. 2020. Body size structure of soil fauna along geographic and temporal gradients of precipitation in grasslands. **Soil Biology and Biochemistry** 140:107638. PDF

221. Komatsu, K. J., M. L. Avolio, N. P. Lemoine, F. Isbell, E. Grman, G. R. Houseman, S. E. Koerner, D. S. Johnson, K. R. Wilcox, J. M. Alatalo, J. P. Anderson, R. Aerts, S. G. Baer, A. H. Baldwin, J. Bates, C. Beierkuhnlein, R. T. Belote, J. Blair, J. M. G. Bloor, P. J. Bohlen, E. W. Bork, E. H. Boughton, W. D. Bowman, A. J. Britton, J. F. Cahill, E. Chaneton, N. R. Chiariello, J. Cheng, S. L. Collins, J. H. C. Cornelissen, G. Du, A. Eskelinen, J. Firn, B. Foster, L. Gough, K. Gross, L. M. Hallett, X. Han, H. Harmens, M. J. Hovenden, A. Jagerbrand, A. Jentsch, C. Kern, K. Klanderud, A. K. Knapp, J. Kreyling, W. Li, Y. Luo, R. L. McCulley, J. R. McLaren, J. P. Megonigal, J. W. Morgan, V. Onipchenko, S. C. Pennings, J. S. Prevéy, J. N. Price, P. B. Reich, C. H. Robinson, F. L. Russell, **O. E. Sala**, E. W. Seabloom, M. D. Smith, N. A. Soudzilovskaia, L. Souza, K. Suding, K. B. Suttle, T. Svejcar, D. Tilman, P. Tognetti, R. Turkington, S. White, Z. Xu, L. Yahdjian, Q. Yu, P. Zhang, and Y. Zhang. 2019. Global change effects on plant communities are magnified by time and the number of global change factors imposed. **Proceedings of the National Academy of Sciences** 116:17867-17873 PDF

220. Corman, J. R., S. L. Collins, E. M. Cook, X. Dong, L. A. Gherardi, N. B. Grimm, R. L. Hale, T. Lin, J. Ramos, L. G. Reichmann, and **O. E. Sala**. 2018. Foundations and Frontiers of Ecosystem Science: Legacy of a Classic Paper (Odum 1969). **Ecosystems** 22:1160-1172. PDF

219. **Sala, O.E.**, C.G. Boone, B.L. Turner and C.M. Currier. 2019. The sustainability publication gap and its implications. **Current Opinion in Environmental Sustainability** 39:39-43 PDF

218. Franco, A. L., L. A. Gherardi, C. M. de Tomasel, W. S. Andriuzzi, K. E. Ankrom, E. A. Shaw, E. M. Bach, **O. E. Sala**, and D. H. Wall. 2019. Drought suppresses soil predators and promotes root herbivores in mesic, but not in xeric grasslands. **Proceedings of the National Academy of Sciences** 116:12883-12888. PDF

217. Delgado-Baquerizo, M., R. D. Bardgett, P. Vitousek, F. Maestre, M. Williams, D. Eldridge, H. Lambers, S. Neuhauser, A. Gallardo, L. García-Velázquez, **O. E. Sala**, S. Abades, F. Alfaro, A. Berhe, M. Bowker, C. Currier, N. Cutler, S. Hart, P. Hayes, Z. Hseu, M. Kirchmair, V. Peña-Ramírez, C. Pérez, S. Reed, F. Santos, C. Siebe, B. Sullivan, L. Weber-Grullon, and N. Fierer. 2019. Changes in

belowground biodiversity during ecosystem development. **Proceedings of National Academy of Sciences** 116(14):6891-6896. PDF

216. Apodaca, M. J., J. D. McInerney, **O. E. Sala**, L. Katinas, and J. V. Crisci. 2019. A Concept Map of Evolutionary Biology to Promote Meaningful Learning in Biology. **The American Biology Teacher** 81(2):79-87. PDF

215. Gherardi, L. A., and **O. E. Sala**. 2019. Effect of interannual precipitation variability on dryland productivity: A global synthesis. **Global Change Biology** 25(1):269-276. PDF

214. McKenna, O. P., and O. E. Sala. 2018. Playa-Wetlands Effects on Dryland Biogeochemistry: Space and Time Interactions. Journal of Geophysical Research: **Biogeosciences** 123:1879-1887. PDF

213. Okin, G. S., **O. E. Sala**, E. R. Vivoni, J. Zhang, and A. Bhattachan. 2018. The interactive role of wind and water in drylands functioning: what does the future hold? **Bioscience** 68(9):670-677. PDF

212. Peters, D. P. C., D. N. Burruss, L. Rodriguez, D. S. McVey4, E. H. Elias, A. M. Pelzel-McCluskey, D. J.D., T. S. Schrade, J. Yao, P. S., J. Lombard, S. R. Archer, B. T. Bestelmeyer, D. M. Browning, C. W. Brungard, J. L. Hatfield, N. P. Hanan, J. E. Herrick, G. S. Okin, **O. E. Sala**, H. Savoy, and E. R. Vivoni. 2018. An integrated view of complex landscapes: a big data-model integration approach to trans-disciplinary science. **Bioscience** 68(9):653-669. PDF

211. Munson, S. M., S. C. Reed, J. Peñuelas, N. G. McDowell, and **O. E. Sala**. 2018. Ecosystem thresholds, tipping points, and critical transitions. **New Phytologist** 218(4):1315-1317. PDF

210. Petrie, M., D. Peters, J. Yao, J. Blair, N. Burruss, S. Collins, J. Derner, L. Gherardi, J. Hendrickson, and **O. Sala**. 2018. Regional grassland productivity responses to precipitation during multi-year above-and below-average rainfall periods: consequences for responses under climate change. **Global Change Biology** 24(5):1935-1951. PDF

209. McKenna, O.P., and **O.E. Sala**. 2018. Groundwater recharge in desert playas: current rates and future effects of climate change. **Environmental Research Letters**. 13(1):014025. PDF

208. Wilcox, K. R., A. T. Tredennick, S. E. Koerner, E. Grman, L. M. Hallett, M. L. Avolio, K. J. La Pierre, G. R. Houseman, F. Isbell, D. S. Johnson, and **others**. 2017. Asynchrony among local communities stabilises ecosystem function of metacommunities. **Ecology letters** 20:1534-1545. PDF

207. Franco, A., M. A. Knox, W. Andriuzzi, C. Tomasel, **O. E. Sala**, and D. H. Wall. 2017. Nematode exclusion and recolonization in experimental soil microcosms. **Soil Biology and Biochemistry** 108:78-83. PDF

206. Knapp, A. K., M. L. Avolio, C. Beier, C. J. Carroll, S. L. Collins, J. S. Dukes, L. H. Fraser, R. J. Griffin-Nolan, D. L. Hoover, A. Jentsch, and **others**. 2017. Pushing precipitation to the extremes in distributed experiments: recommendations for simulating wet and dry years. **Global change biology** 23:1774-1782. PDF

205. **Sala, O. E.**, L. Yahdjian, K. M. Havstad, and M. R. Aguiar. 2017. Rangeland Ecosystem Services: Nature´s Supply and Humans´ Demand. Pages 467-489. *in* D. D. Briske, editor. **Rangeland Systems: Process, Management and Challenges**. Springer Verlag, New York. PDF

204. **Sala, O. E.**, L. Vivanco, and P. Flombaum. 2017. Grassland Communities and Ecosystems. *in* **Reference Module in Life Sciences**, Elsevier, New York. PDF

203. Flombaum, P., L. Yahdjian, and **O. E. Sala**. 2017. Global-change drivers of ecosystem functioning modulated by natural variability and saturating responses. **Global Change Biology** 23(2):503-511. PDF

202. **Sala, O. E**. 2016. How Scientists Can Help End the Land-Use Conflict. **Bioscience** 66(11):915. PDF

201. McKenna, O. and **O. E. Sala**. 2016. Biophysical controls over concentration and depth distribution of soil organic carbon and nitrogen in desert playas. **Journal of Geophysical Research. Biogeosciences** 121(12):3019-3029. PDF

200. Estiarte, M., S. Vicca, J. Peñuelas, M. Bahn, C. Beier, B. Emmett, P. Fay, P. Hanson, R. Hasibeder, J. Kigel, G. Kröel-Dulay, K. Larsen, E. Lellei-Kovács, J. Limousin, R. Ogaya, J. Ourcival, S. Reinsch, **O. E. Sala**, I. Schmidt, M. Sternberg, K. Tielbörger, A. Tietema, and I. Janssens. 2016. Few multi-year precipitation-reduction experiments find a shift in the productivity-precipitation relationship. **Global Change Biology** 22(7):2570-2581. PDF

199. Gherardi, L. and **O. E. Sala**. 2015. Enhanced interannual precipitation variability increases plant functional diversity that in turn ameliorates negative impact on productivity. **Ecology Letters** 18(12):1293-1300. PDF

198. Gherardi, L. and **O. E. Sala**. 2015. Enhanced precipitation variability decreases grass- and increases shrub-productivity. **Proceedings of National Academy of Sciences** 112(41):12735-12740. PDF

197. Knapp, A. K., D. L. Hoover, K. Wilcox, M. Avolio, S. Koerner, K. La Pierre, M. Loik, Y. Luo, **O. E. Sala**, and M. D. Smith. 2015. Characterizing differences in precipitation regimes of extreme wet and dry years: Implications for climate change experiments. **Global Change Biology** 21(7):2624-2633. PDF

196. **Sala, O. E.**, L. Gherardi, and D. P. C. Peters. 2015. Enhanced Precipitation Variability Effects on Water Losses and Ecosystem Functioning: Differential Response of Arid and Mesic Regions. **Climatic Change** 131(2):213-227. PDF

195. Scheffer, M., J. Bascompte, T. Bjordam, S. Carpenter, L. B. Clarke, C. Folke, P. Marquet, N.M. Mazzeo, M., **O. E. Sala**, and F. Westley. 2015. Dual Thinking for Scientists. **Ecology and Society** 20(2):3. PDF

194. Vandegehuchte, M. L., Z. A. Sylvain, L. G. Reichmann, C. Milano de Tomasel, U. N. Nielsen, D. H. Wall, and **O. E. Sala**. 2015. Responses of a desert nematode community to changes in water availability. **Ecosphere** 6(3):1-15. PDF

193. Yahdjian, L., **O. E. Sala**, and K. M. Havstad. 2015. Rangeland ecosystem services: shifting focus from supply to reconciling supply and demand. **Frontiers in Ecology and the Environment** 13(1):44-51. PDF

192. Monger, C., **O. E. Sala**, M. C. Duniway, H. Goldfus, I. A. Meir, R. M. Poch, H. L. Throop, and E. R. Vivoni. 2015. Legacy effects in linked ecological-soil-geomorphic systems of drylands. **Frontiers in Ecology and the Environment** 13(1):13-19. PDF

191. Peters, D. P., K. M. Havstad, S. R. Archer, and **O. E. Sala**. 2015. Beyond desertification: new paradigms for dryland landscapes. **Frontiers in Ecology and the Environment** 13(1):4-12. PDF

190. **Sala, O. E.** and F. T. Maestre. 2014. Grass-woodland transitions: Determinants and consequences for ecosystem functioning and provisioning of services. **Journal of Ecology** 102(6):1357-1362. PDF

189. Anadón, J. D., **O. E. Sala**, and F. T. Maestre. 2014. Climate change will increase savannas at the expense of forests and treeless vegetation in tropical and subtropical Americas. **Journal of Ecology** 102(6):1363-1373. PDF

188. Jobbágy, E. and **O. E. Sala**. 2014. The imprint of crop-choice on global nutrient needs. **Environmental Research Letters** 9(8):084014. PDF

187. Anadón, J. D., **O. E. Sala**, B. L. Turner, and E. M. Bennett. 2014. The effect of woody-plant encroachment on livestock production in North and South America. **Proceedings of National Academy of Sciences** 111(35):12948-12953. PDF

186. Reichmann, L. G. and **O. E. Sala**. 2014. Differential sensitivities of grassland structural components to changes in precipitation mediate productivity response in a desert ecosystem. **Functional Ecology** 28(5):1292-1298. PDF

185. Sylvain, Z. A., D. H. Wall, K. L. Cherwin, D. P. C. Peter, L. G. Reichmann, and **O. E. Sala**. 2014. Soil animal responses to moisture availability are largely scale, not ecosystem dependent: Insight from a cross-site study. **Global Change Biology** 20(8):2631-2643. PDF

184. Flombaum, P., **O. E. Sala**, and E. B. Rastetter. 2014. Interactions among resource partitioning, sampling effect, and facilitation on the biodiversity effect: a modeling approach. **Oecologia** 174(2):559-566. PDF

183. Yahdjian, L., L. Gherardi, and **O. E. Sala**. 2014. Grasses have larger response than shrubs to increased nitrogen availability: A fertilization experiment in the Patagonian steppe. **Journal of Arid Environments** 102:17-20. PDF

182. Herrick, J. E., **O. E. Sala**, and J. W. Karl. 2013. Land degradation and climate change: a sin of omission? **Frontiers in Ecology and the Environment** 11(6):283-283. PDF

181. Gherardi, L. A., **O. E. Sala**, and L. Yahdjian. 2013. Preference for different inorganic-nitrogen forms among plant-functional types and species of the Patagonian steppe. **Oecologia** 173(3):1075-1081**.** PDF

180. Gherardi, L. and **O. E. Sala**. 2013. Automated rainfall manipulation system: A reliable and inexpensive tool for ecologists. **Ecosphere** 4(2):1-10. PDF

179. **Sala, O. E.**, L. Vivanco, and P. Flombaum. Grassland Ecosystems. 2013. Vol 4 Pages 1-7 *in* S. A. Levin, editor. **Encyclopedia of Biodiversity (Second Edition)**. Academic Press. PDF

178. Peters, D. P. C., S. A. Archer, B. T. Bestelmeyer, M. L. Brooks, J. R. Brown, A. C. Comrie, H. R. Gimblett, J. H. Goldstein, K. M. Havstad, L. López-Hoffman, H. C. Monger, G. S. Okin, A. Rango, **O. E. Sala**, C. E. Tweedie, and E. R. Vivoni. 2013. Desertification of Rangelands. Pages 239-258 *in* T. R. Seastedt and K. N. Suding, editors. **Ecosystem Functions and Services**. Elsevier. PDF

177. Reichmann, L. G., **O. E. Sala**, and D. P. C. Peters. 2013. Water controls on nitrogen transformations and stocks in an arid ecosystem. **Ecosphere** 4(1):11. PDF

176. Reichmann, L. G., **O. E. Sala**, and D. P. C. Peters. 2013 Precipitation legacies in desert-grassland primary production occur through previous-year tiller density. **Ecology** 94(2):435-443. PDF

175. **Sala, O. E.**, L. Gherardi, L. Reichmann, E. Jobbágy, and D. Peters. 2012. Legacies of precipitation fluctuations on primary production: Theory and data synthesis. **Philosophical Transactions of the Royal Society B** 367(1606):3135-3144. PDF

174. Schwartz, M. W., J. J. Hellmann, J. M. McLachlan, S. D.F., J. O. Borevitz, J. Brennan, A. E. Camacho, G. Ceballos, J. R. Clark, H. Doremus, R. Early, J. R. Etterson, D. Fielder, J. L. Gill, P. Gonzalez, N. Green, L. Hannah, D. W. Jamieson, J. D., B. A. Minteer, J. Odenbaugh, S. Polasky, D. M. Richardson, T. L. Root, H. D. Safford, **O. E. Sala**, S. H. Schneider, A. R. Thompson, J. W. Williams, M. Vellend, P. Vitt, and S. Zellmer. 2012. Managed Relocation: integrating the scientific, regulatory and ethical challenges **Bioscience** 62(8):732-743. PDF

173. Yao, J., **O. E. Sala**, and D. Peters. 2013. Cross-site studies "by design": Experiments and observations that provide new insights. *in* D. P. C. Peters, C. Laney, A. Lugo, S. Collins, C. Driscoll, P. Groffman, J. Grove, A. Knapp, T. Kratz, M. Ohman, R. Waide, and J. Yao, editors. **Long-Term Trends in Ecological Systems: A Basis for Understanding Responses to Global Change**. USDA Agricultural Research Service, Washington, DC, USA. PDF

172. **Sala, O. E.**, R. A. Golluscio, W. K. Lauenroth, and P. A. Roset. 2012. Contrasting Nutrient - Capture Strategies in Shrubs and Grasses of a Patagonian Arid Ecosystem. **Journal of Arid Environments** 82:130-135. PDF

171. Peters, D. P. C., J. Yao, **O. E. Sala**, and J. Anderson. 2012. Directional Climate Change and Potential Reversal of Desertification in Arid and Semiarid Ecosystems. **Global Change Biology** 18(1):151-163. PDF

170. Flombaum, P. and **O. E. Sala**. 2012. Effects of plant species traits on ecosystem processes: Experiments in the Patagonian steppe. **Ecology** 93(2):227-234. PDF

169. Throop, H., L. Reichmann, **O. E. Sala**, and S. Archer. 2012. Response of dominant grass and shrub species to water manipulation: An ecophysiological basis for shrub invasion in a Chihuahuan Desert Grassland. **Oecologia** 169(2):373-383. PDF

168. Montti, L., P. I. Campanello, M. G. Gatti, C. Blundo, A. T. Austin, **O. E. Sala**, and G. Goldstein. 2011. Understory bamboo flowering provides a very narrow light window of opportunity for canopy-tree recruitment in a neotropical forest of Misiones, Argentina. **Forest Ecology and Management**. 262(8):1360-1369. PDF

167. Yahdjian, L., L. Gherardi, and **O. E. Sala**. 2011. Nitrogen limitation in arid-subhumid ecosystems: A meta-analysis of fertilization studies. **Journal Arid Environments** 75(8):675-680. PDF

166. Yahdjian, L. and **O. E. Sala**. 2011. El Futuro de los Pastizales Sudamericanos. **Interciencia** 36(2):153-159. PDF

165. Flombaum, P. and **O. E. Sala**. 2011. Efectos de la biodiversidad sobre el funcionamiento de los ecosistemas. Pages 49-62. *in* J.A. Simonetti and R. Dirzo, editors. **Conservación Biológica: Perspectivas desde América Latina**. Editorial Universitaria, Universidad de Chile, Santiago. PDF

164. Yahdjian, L. and **O. E. Sala**. 2010. Size of Precipitation Pulses Controls Nitrogen Transformations and Losses in an Arid Patagonian Steppe. **Ecosystems** 13(4):575-585. PDF

163. Richardson, D. M., J. Hellmann, J. McLachlan, D. Sax, M. Schwartz, J. Brennan, P. Gonzalez, T. Root, **O. E. Sala**, S. Schneider, D. Ashe, A. Camacho, J. Rappaport Clark, R. Early, J. Etterson, D. Fielder, J. Gill, B. Minteer, S. Polasky, H. Safford, A. Thompson, and M. Vellend. 2009. Multidimensional evaluation of managed relocation. **Proceedings of the National Academy of Sciences** 106(24):9721-9724. PDF

162. Downs, M., and **O. E. Sala**. 2009. Grasslands. Pages 614-618 *in* S. A. Levin, editor. **The Princeton Guide to Ecology**. Princeton University Press, Princeton. PDF

161. Zaller, J. G., Caldwell MM, Flint SD, Ballaré C, Scopel A, and **O. E. Sala**. 2009. Solar UV-B and warming affect decomposition and earthworms in a fen ecosystem in Tierra del Fuego, Argentina. **Global Change Biology** 15(10):2493-2502. PDF

160. Golluscio, R. A., A. Austin, G. C. García Martínez, M. Gonzalez-Polo, **O. E. Sala**, and R. B. Jackson. 2009. Sheep grazing decreases organic carbon and nitrogen pools in the Patagonian steppe: combination of direct and indirect effects. **Ecosystems** 12(4):686-697. PDF

159. Marchesini, V. A., **O. E. Sala**, and A. T. Austin. 2009. Ecological consequences of a massive flowering event of bamboo (Chusquea culeou) in a temperate forest of Patagonia, Argentina. **Journal of Vegetation Science** 20(3):424-432. PDF

158. **Sala, O. E.**, D. Sax, and H. Leslie. 2009. Biodiversity Consequences of Increased Biofuel production. Pages 127-137 *in* R. W. Howarth and S. Bringezu, editors. **Biofuels: Environmental Consequences and Interactions with Changing Land Use**. Cornell University Press. PDF

157. Howarth, R. W., S. Bringezu, L. Martinelli, R. Santoro, D. Messem, and **O. E. Sala**. 2009. Introduction: Biofuels and the Environment in the 21st Century. Pages 15-36 *in* R. W. Howarth and S. Bringezu, editors. **Biofuels: Environmental Consequences and Interactions with Changing Land Use**. Cornell University Press, Ithaca. PDF

156. Ojima, D., C. Field, P. Leadley, **O. E. Sala**, D. Messem, J. Petersen, J. Born, L. VanWey, and M. Wright. 2009. Mitigation Strategies: Biofuel Development Considerations to Minimize Impacts on the Socio-Environmental System. Pages 287-302. *in* R. W. Howarth and S. Bringezu, editors. **Biofuels: Environmental Consequences and Interactions with Changing Land Use**. Cornell University Press, Ithaca. PDF

155. Flombaum, P. and **O. E. Sala**. 2009. Cover is a good predictor of aboveground biomass in arid systems. **Journal of Arid Environments** 6(73):597-598. PDF

154. **Sala, O. E.**, L. A. Meyerson, and C. Parmesan, editors. 2009. **Biodiversity Change and Human Health: From Ecosystem Services to Spread of Disease**. Island Press, Washington, DC. PDF

153. **Sala, O. E.**, L. A. Meyerson, and C. Parmesan. 2009. Changes in biodiversity and their consequences for human health. Pages 1-12 *in* **O. E. Sala**, L. A. Meyerson, and C. Parmesan, editors. **Biodiversity Change and Human Health: From Ecosystem Services to Spread of Disease**. Island Press, Washington DC. PDF

152. Meyerson, L. A., **O. E. Sala**, A. Froment, C. Friedman, K. Hund-Rinke, P. Martens, A. Mazumder, A. Purohit, M. Thomas, and A. Wilby. 2009. Sustainable allocation of biodiversity to improve human health and well-being. Pages 83-98 *in* **O. E. Sala**, L. A. Meyerson, and C. Parmesan, editors. **Biodiversity Change and Human Health: From Ecosystem Services to Spread of Disease**. Island Press, Washington DC. PDF

151. Meyerson, F. A. B., L. A. Meyerson, C. Parmesan, and **O. E. Sala**. 2009. Human health, biodiversity and ecosystem services: the intertwined challenging future. Pages 281-285 *in* **O. E. Sala**, L. A. Meyerson, and C. Parmesan, editors. **Biodiversity Change and Human Health: From Ecosystem Services to Spread of Disease**. Island Press, Washington, DC. PDF

150. Lauenroth, W. K., D. G. Milchunas, **O. E. Sala**, I. Burke, and J. A. Morgan. 2008. Net Primary Production in the Shortgrass Steppe. Pages 270-305 *in* W. K. Lauenroth and I. Burke, editors. **Ecology of the Shortgrass Steppe**. Oxford University Press, Oxford. PDF

149. Melillo, J. M., and **O. E. Sala**. 2008. Ecosystem Services. Pages 75-115. *in* E. Chivian and A. Bernstein, editors. **Sustaining Life: How Human Health Depends on Biodiversity**. Oxford University Press, Oxford. PDF

148. Flombaum, P., and **O. E. Sala**. 2008. Higher effect of plant species diversity on productivity in natural than artificial ecosystems. **Proceedings of the National Academy of Sciences** 105(16):6087-6090. PDF

147. Yahdjian, L., and **O. E. Sala**. 2008. Climate Change Impacts on South American Rangelands. **Rangelands** 30(3):34-39. PDF

146. Armas, C., F. I. Pugnaire, and **O. E. Sala**. 2008. Patch structure dynamics and mechanisms of cyclical succession in a Patagonian steppe (Argentina). **Journal of Arid Environments** 72(9):1552-1561. PDF

145. Cipriotti, P. A., P. Flombaum, **O. E. Sala**, and M. Aguiar. 2008. Does drought control emergence and survival of grass seedlings in semi-arid rangelands? An example with a Patagonian species. **Journal Arid Environments** 72(3):162-174. PDF

144. Cid, M. S., C. M. Ferri, M. A. Brizuela, and **O. E. Sala**. 2008. Structural heterogeneity and productivity of a tall fescue pasture grazed rotationally by cattle at four stocking densities. **Grassland Science** 54(1):9-16. PDF

143. Yahdjian, L., and **O. E. Sala**. 2008. Do litter decomposition and nitrogen mineralization show the same trend in the response to dry and wet years in the Patagonian steppe? **Journal Arid Environments** 72(5):687-695. PDF

142. Flombaum, P., and **O. E. Sala**. 2007. A non-destructive and rapid method to estimate biomass and aboveground net primary production in arid environments. **Journal Arid Environments** 69(2):352-358. PDF

141. Knapp, A. K., J. M. Briggs, D. L. Childers, and **O. E. Sala**. 2007. Estimating Aboveground Net Primary Production in Grassland and Herbaceous Dominated Ecosystems. Pages 27-48 *in* T. J. Fahey and A. K. Knapp, editors. **Principles and Standards for Measuring Primary Production**. Oxford University Press, Oxford. PDF

140. Peters, D., **O. Sala**, C. Allen, A. Covich, and M. Brunson. 2007. Cascading events in linked ecological and socio-economic systems: Predicting change in an uncertain world. **Frontiers in Ecology and the Environment** 5(4):221-224. PDF

139. Yahdjian, L. and **O.E. Sala**. 2006. Vegetation structure constrains primary production response to increased water availability in the Patagonian steppe of Argentina. **Ecology** 87(4):952-962. PDF

138. Chapin, F. S., G. M. Woodwell, J. T. Randerson, E. B. Rastetter, G. M. Lovett, D. D. Baldocchi, D. A. Clark, M. E. Harmon, D. S. Schimel, R. Valentini, C. Wirth, J. D. Aber, J.J. Cole, M. L. Goulden, J. W. Harden, M. Heimann, R. W. Howarth, P. A. Matson, A. D. McGuire, J. M. Melillo, H. A. Mooney, J. C. Neff, R. A. Houghton, M. L. Pace, M. G. Ryan, S. W. Running, **O. E. Sala**, W. H. Schlesinger, and E.-D. Schulze. 2006. Reconciling Carbon- cycle Concepts, Terminology, and Methods. **Ecosystems** 9(7):1041-1050. PDF

137. **Sala, O.E.** and R. B. Jackson. 2006. Determinants of biodiversity change: Ecological tools for building scenarios. **Ecology**: 87(8):1875-1876. PDF

136. Dobson, A., D. Lodge, J. Alder, G. S. Cumming, J. Keymer, J. McGlade, H. Mooney, J.A. Rusak, **O. E. Sala**, V. Wolters, D. H. Wall, R. Winfree, and M. Xenopoulos. 2006. Habitat loss, trophic collapse and the decline of ecosystem services. **Ecology**: 87(8):1915-1924. PDF

135. Austin, A. T., **O.E. Sala**, and R. B. Jackson. 2006. Inhibition of nitrification alters carbon turnover in the Patagonian steppe. **Ecosystems** 9(8):1257-1265. PDF

134. Crisci, J., **O.E. Sala**, L. Katinas, P. Posadas. 2006. Bridging historical and ecological approaches in biogeography. **Australian Systematic Botany** 19(1):1-10. PDF

133. Van Vuuren, D.P., **O.E. Sala** and H.M. Pereira. 2006. The future of vascular plant diversity under four global scenarios. **Ecology and Society** 11(2):25. PDF

132. Yahdjian, L., **O. E. Sala**, and A. T. Austin. 2006. Differential controls of water input on litter decomposition and nitrogen dynamics in the Patagonian Steppe. **Ecosystems** 9(1):128-141. PDF

131. **Sala, O. E.**, D. van Vuuren, H. Pereira, D. Lodge, J. Alder, G. S. Cumming, A. Dobson, V.Wolters, and M. Xenopoulos. 2005. Biodiversity across Scenarios. Pages 375-408 *in* S. R. Carpenter, P. L. Pingali, E. M. Bennett, and M. Zurek, editors. **Ecosystems and Human Well-Being: Scenarios**. Island Press, Washington DC. PDF

130. Kareiva, P., J. B. R. Agard, J. Alder, E. M. Bennett, C. Butler, S. R. Carpenter, W. Cheung, G. S. Cumming, R. Defries, B. de Vries, R. E. Dickinson, A. Dobson, J. Foley, J. Geoghegan, B. Holland, P. Kabat, J. Keymer, A. Kleidon, D. Lodge, S. Manson, J. McGlade, H. Mooney, A. Parma, M. Pascual, H. Pereira, M. Rosegrant, C. Ringler, **O. E. Sala**, B. L. Turner, D. van Vuuren, D. H. Wall, P. Wilkinson, and V. Wolters. 2005. State of the Art in Simulating Future Changes in Ecosystem Services. Pages 71-115. *in* S. R. Carpenter, P. Pingali, E. M. Bennett, and M. Zurek, editors. **Ecosystems and Human Well-Being: Scenarios**. Island Press, Washington DC. PDF

129. Alcamo, J., D. Van Vuuren, C. Ringler, J. Alder, E. Bennett, D. Lodge, T. Masui, T. Morita, M. Rosegrant, **O. Sala**, and others. 2005. Methodology for developing the MA scenarios. Carpenter, SR et al.(2005), **Ecosystems and Human Well-being: Scenarios**. Island Press, Washington, DC. PDF

128. Adler, P. B., D. G. Milchunas, **O. E. Sala**, I. C. Burke, and W. K. Lauenrot h. 2005. Plant traits and ecosystem grazing effects: Comparison of U.S. sagebrush steppe and Patagonian steppe. **Ecological Applications** 15(2):774-792. PDF

127. Pancotto, V. A., **O. E. Sala**, T. M. Robson, M. M. Caldwell, and A. L. Scopel. 2005. Direct and indirect effects of solar ultraviolet-B radiation on long-term decomposition. **Global Change Biology** 11(11):1982-1989. PDF

126. Cumming, G. S., J. Alcamo, **O. E. Sala**, R. Swart, E. M. Bennett, and M. Zurek. 2005. Are existing global scenarios consistent with ecological feedbacks? **Ecosystems** 8(2):143-152. PDF

125. Meyerson, L. A., J. Baron, J. M. Melillo, R. J. Naiman, R. I. O'Malley, G. Orians, M. A. Palmer, A. S. P. Pfaff, S. W. Running, and **O. E. Sala**. 2005. Aggregate measures of ecosystem services: can we take the pulse of nature? **Frontiers in Ecology and the Environment** 3(1):56-59. PDF

124. Huxman, T. E., M. D. Smith, P. A. Fay, A. K. Knapp, M. R. Shaw, M. E. Loik, S. D. Smith, D. T. Tissue, J. C. Zak, J. F. Weltzin, W. T. Pockman, **O. E. Sala**, B. Haddad, J. Harte, G. W. Koch, S. Schwinning, E. E. Small, and D. G. Williams. 2004. Convergence across biomes to a common rain-use efficiency. **Nature** 429(6992):651-654. PDF

123. Lauenroth, W. K., H. E. Epstein, J. M. Paruelo, I. C. Burke, M. R. Aguiar, and **O. E. Sala**. 2004. Potential effects of climate change on the temperate zones of North and South America. **Revista Chilena de Historia Natural** 77:439-453. PDF

122. Schwinning, S., and **O. E. Sala**. 2004. Hierarchy of responses to resource pulses in arid and semi-arid ecosystems. **Oecologia** 141(2):211-220. PDF

121. Schwinning, S., **O. E. Sala**, M. Loik, and J. Ehleringer. 2004. Thresholds, memory, and seasonality: understanding pulse dynamics in arid/semiarid ecosystems. **Oecologia** 141:191-193. PDF

120. Robson, T. M., V. A. Pancotto, C. L. Ballaré, **O. E. Sala**, A. L. Scopel, and M. M. Caldwell. 2004. Reduction of solar UV-B mediates changes in the Sphagnum capitulum microenvironment and the peatland microfungal community. **Oecologia** 140(3):480-490. PDF

119. Adler, P. B., D. G. Milchunas, W. K. Lauenroth, **O. E. Sala**, and I. C. Burke. 2004. Functional traits of graminoids in semi-arid steppes: a test of grazing histories. **Journal of Applied Ecology** 41(4):653-663. PDF

118. Zaller, J. G., P. S. Searles, M. M. Caldwell, S. D. Flint, A. L. Scopel, and **O. E. Sala**. 2004. Growth responses to ultraviolet-B radiation of two Carex species dominating an Argentinean fen ecosystem. **Basic and Applied Ecology** 5(2):153-162. PDF

117. Giordano, C. V., T. Mori, **O. E. Sala**, A. L. Scopel, M. M. Caldwell, and C. L. Ballaré. 2003. Functional acclimation to solar UV-B radiation in *Gunnera magellanica*, a native plant species of southernmost Patagonia. **Plant Cell and Environment** 26(12):2027-2036. PDF

116. López, N. I., A. T. Austin, **O. E. Sala**, and B. S. Méndez. 2003. Controls on nitrification in a water-limited ecosystem: experimental inhibition of ammonia-oxidising bacteria in the Patagonian steppe. **Soil Biology & Biochemistry** 35(12):1609-1613. PDF

115. Zaller, J. G., P. S. Searles, M. C. Rousseaux, S. D. Flint, M. M. Caldwell, **O. E. Sala**, C. L. Ballaré, and A. L. Scopel. 2003. Solar ultraviolet-B radiation can affect slug-feeding preference for some plant species native to a fen ecosystem in Tierra del Fuego, Argentina. **Plant Ecology** 169(1):43-51. PDF

114. Ollinger, S., **O. E. Sala**, G. Agren, B. Berg, E. Davidson, C. B. Field, M. Lerdau, J. Neff, M. Scholes, and R. Sterner. 2003. New frontiers in the study of element interactions. Pages 63-91. *in* J. M. Melillo, C. B. Field, and B. Moldan, editors. **Interactions of the major biogeochemical cycles: Global change and human impacts**. Island Press, Washington, DC. PDF

113. Robson, T. M., V. A. Pancotto, S. D. Flint, C. L. Ballaré, **O. E. Sala**, A. L. Scopel, and M. M. Caldwell. 2003. Six years of solar UV-B manipulations affect growth of Sphagnum and vascular plants in a Tierra del Fuego peatland. **New Phytologist** 160(2):379-389. PDF

112. Pancotto, V. A., **O. E. Sala**, M. Cabello, N. I. López, T. M. Robson, C. L. Ballare, M. M. Caldwell, and A. L. Scopel. 2003. Solar UV-B decreases decomposition in herbaceous plant litter in Tierra del Fuego, Argentina: Potential role of an altered decomposer community. **Global Change Biology** 9(10):1465-1474. PDF

111. **Sala, O.E.** 2003. Almost all about biodiversity. **Science** 299(5612):1521. PDF

110. Veron, S. R., J. M. Paruelo, **O.E. Sala**, and W.K. Lauenroth. 2002. Environmental controls of primary production in agricultural systems of the Argentine Pampas. **Ecosystems** 5(7):625-635. PDF

109. Yahdjian, L., and **O. E. Sala**. 2002. A rainout shelter design for intercepting different amounts of rainfall. **Oecologia** 133(2):95-101. PDF

108. Loreau, M., A. Downing, M. Emmerson, A. Gonzalez, J. Hughes, P. Inchausti, J. Joshi, J. Norberg, and **O. E. Sala**. 2002. A new look at the relationship between diversity and stability. Pages 79-91. *in* M. Loreau, S. Naeem, and P. Inchausti, editors. **Biodiversity and ecosystem functioning: synthesis and perspectives.** Oxford University Press, Oxford. PDF

107. Zaller, J. G., M. M. Caldwell, S. D. Flint, A. L. Scopel, **O. E. Sala**, and C. L. Ballaré. 2002. Solar UV-B radiation affects below-ground parameters in a fen ecosystem in Tierra del Fuego, Argentina: implications of stratospheric ozone depletion. **Global Change Biology** 8(9):867-871. PDF

106. Folgarait, P. J., and **O. E. Sala**. 2002. Granivory rates by rodents, insects, and birds at different microsites in the Patagonian steppe. **Ecography** 25(4):417-427. PDF

105. Austin, A. T., and **O. E. Sala**. 2002. Carbon and nitrogen dynamics across a natural precipitation gradient in Patagonia, Argentina. **Journal of Vegetation Science** 13(3):351-360. PDF

104. Jobbágy, E., **O. E. Sala**, and J. M. Paruelo. 2002. Patterns and controls of primary production in the Patagonian steppe: a remote sensing approach. **Ecology** 83(2):307-319. PDF

103. Loreti, J., M. Oesterheld, and **O. E. Sala**. 2001. Lack of intraspecific variation in resistance to defoliation in a grass that evolved under light grazing pressure. **Plant Ecology** 157(2):195-202. PDF

102. Paruelo, J. M., E. G. Jobbágy, and **O. E. Sala**. 2001. Current distribution of ecosystem functional types in temperate South America. **Ecosystems** 4(7):683-698. PDF

101. Ballaré, C. L., M. C. Rousseaux, P. S. Searles, J. G. Zaller, C. V. Giordano, T. M. Robson, M. M. Caldwell, **O. E. Sala**, and A. L. Scopel. 2001. Impacts of solar ultraviolet-B radiation on terrestrial ecosystems of Tierra del Fuego (southern Argentina). **Journal of Photochemistry and Photobiology** 62(1-2):67-77. PDF

100. **Sala, O. E.**, F. S. Chapin, and E. Huber-Sannwald. 2001. Potential biodiversity change: global patterns and biome comparisons. Pages 351-367. *in* F. S. Chapin, **O. E. Sala**, and E. Huber-Sannwald, editors. **Global Biodiversity in a Changing Environment: Scenarios for the 21st Century.** Springer Verlag, New York. PDF

99. **Sala, O. E.** 2001. Temperate Grasslands. Pages 121-137. *in* F. S. Chapin, **O. E. Sala**, and E. Huber-Sannwald, editors. **Global Biodiversity in a Changing Environment: Scenarios for the 21st Century.** Springer Verlag, New York. PDF

98. Chapin III, F. S., **O. E. Sala**, and E. Huber-Sannwald. 2001. The future of biodiversity in a changing world. Pages 1-4. *in* F. S. Chapin, **O. E. Sala**, and E. Huber Sannwald, editors. **Global Biodiversity in a Changing Environment: Scenarios for the 21st Century.** Springer Verlag, New York. PDF

97. Chapin III, F. S., **O. E. Sala**, and E. Huber-Sannwald, editors. 2001. **Global Biodiversity in a Changing Environment: Scenarios for the 21st Century.** Springer-Verlag, New York. PDF

96. Clark, J. S., S. R. Carpenter, M. Barber, S. Collins, A. Dobson, J. Foley, D. Lodge, M. Pascual, R. Pielke, W. Pizer, C. Pringle, W. V. Reid, K. A. Rose, **O. E. Sala**, W. Schlesinger, D. H. Wall, and D. Wear. 2001. Ecological Forecasts: an Emerging Imperative. **Science** 293(5530):657-660. PDF

95. **Sala, O. E.** 2001. Productivity of temperate grasslands. Pages 285-300. *in* J. Roy, B. Saugier, and H. A. Mooney, editors. **Terrestrial Global Productivity.** Academic Press, San Diego. PDF

94. Rousseaux, M. C., A. L. Scopel, P. S. Searles, M. M. Caldwell, **O. E. Sala**, and C. L. Ballaré. 2001. Responses to solar ultraviolet-B radiation in a shrub-dominated natural ecosystem of Tierra del Fuego (southern Argentina). **Global Change Biology** 7(4):467-478. PDF

93. **Sala, O. E.** 2001. Price put on biodiversity. **Nature** 412(6842):34-36. PDF

92. Oesterheld, M., J. Loreti, M. Semmartin, and **O. E. Sala**. 2001. Inter-annual variation in primary production of a semi-arid grassland related to previous-year production. **Journal of Vegetation Science** 12(1):137-142. PDF

91. **Sala, O. E.**, A. T. Austin, and L. Vivanco. 2001. Temperate grassland and shrubland ecosystems. Pages 627-635. *in* S. Levin, editor. **Encyclopedia of Biodiversity.** Academic Press, San Diego. PDF

90. Paruelo, J. M., **O. E. Sala**, and A. B. Beltrán. 2000. Long term dynamics of water and carbon in semi-arid ecosystems: A gradient analysis in the Patagonian Steppe. **Plant Ecology** 150(1-2):133-143. PDF

89. Wolters, V., W. L. Silver, D. E. Bignell, D. C. Coleman, P. Lavelle, W. van der Putten, P. de Ruiter, J. Rusek, D. H. Wall, D. A. Wardle, L. Brussaard, J. M. Dangerfield, V. K. Brown, K. Giller, D. U. Hooper, **O. E. Sala**, J. Tiedje, and J. A. van Veen. 2000. Effects of global changes on above and belowground biodiversity n terrestrial ecosystems: implications for ecosystem functioning. **BioScience** 50(12):1089-1098. PDF

88. **Sala, O. E.**, and A. T. Austin. 2000. Methods of estimating aboveground net primary production. Pages 31-43. *in* **O. E. Sala**, R. B. Jackson, H. A. Mooney, and R. W. Howarth, editors. **Methods in Ecosystem Science.** Springer Verlag, New York. PDF

87. **Sala, O. E.**, R. B. Jackson, H. A. Mooney, and R. W. Howarth. 2000. Methods in ecosystem science: progress, tradeoffs, and limitations. Pages 1-3. *in* **O. E. Sala**, R. B. Jackson, H. A. Mooney, and R. W. Howarth, editors. **Methods in Ecosystem Science.** Springer Verlag, New York. PDF

86. **Sala, O. E.**, R. B. Jackson, H. A. Mooney, and R. W. Howarth, editors. 2000. **Methods in Ecosystem Science.** Springer Verlag, New York. PDF

85. Chapin, F. S., E. S. Zavaleta, V. T. Eviner, R. L. Naylor, P. M. Vitousek, H. L. Reynolds, D.U. Hooper, S. Lavorel, **O. E. Sala**, S. E. Hobbie, M. C. Mack, and S. Diaz. 2000. Consequences of changing biodiversity. **Nature** 405(6783):234-242. PDF

84. Jobbágy, E., and **O. E. Sala**. 2000. Controls of grass and shrub aboveground production in the Patagonian steppe. **Ecological Applications** 10(2):541-549. PDF

83. Jackson, R. B., H. J. Schenk, E. G. Jobbágy, J. Canadell, G. D. Colello, R. E. Dickinson, C. B. Field, P. Friedlingstein, M. Heimann, K. Hibbard, D. W. Kicklighter, A. Kleidon, R. P. Neilson, W. J. Parton, **O. E. Sala**, and M. T. Sykes. 2000. Belowground consequences of vegetation change and their treatment in models. **Ecological Applications** 10(2):470-483. PDF

82. **Sala, O. E.**, F. S. Chapin, J. J. Armesto, E. Berlow, J. Bloomfield, R. Dirzo, E. Huber - Sanwald, L. F. Huenneke, R. B. Jackson, A. Kinzig, R. Leemans, D. M. Lodge, H. A. Mooney, M. Oesterheld, N. L. Poff, M. T. Sykes, B. H. Walker, M. Walker, and D. H. Wall. 2000. Global biodiversity scenarios for the year 2100. **Science** 287(5459):1770-1774. PDF

81. Aguiar, M., and **O. E. Sala**. 1999. Patch structure, dynamics, and implications for the functioning of arid ecosystems. **Trends in Ecology and Evolution** 14(7):273-277. PDF

80. Austin, A. T., and **O. E. Sala**., 1999. Foliar δ15N is negatively correlated with rainfall along the IGBP transect in Australia. **Australian Journal of Plant Physiology** 26(3):293-295. PDF

79. Paruelo, J., W. K. Lauenroth, I. Burke, and **O. E. Sala**. 1999. Grassland precipitation-use efficiency varies across a resource gradient. **Ecosystems** 2(1):64-68. PDF

78. **Sala, O. E.**, F. S. Chapin III, R. H. Gardner, W. K. Lauenroth, H. A. Mooney, and P. S. Ramakrishnan. 1999. Global change, biodiversity and ecological complexity. Pages 304-328. *in* B. H. Walker, W. L. Steffen, J. Canadell, and J. S. I. Ingram, editors. **The Terrestrial Biosphere and Global Change: Implications for Natural and Managed Ecosystems.** Cambridge University Press, Cambridge. PDF

77. Paruelo, J., E. Jobbágy, and **O. E. Sala**. 1998. Biozones of Patagonia (Argentina). **Ecología Austral** 8(2):145-153. PDF

76. Paruelo, J., A. Beltrán, E. Jobbágy, **O. E. Sala**, and R. Golluscio. 1998. The climate of Patagonia: general patterns and controls on biotic processes. **Ecología Austral** 8(2):85-101. PDF

75. Aguiar, M., and **O. E. Sala**. 1998. Interactions among grasses, shrubs, and herbivores in Patagonian grass-shrub steppes. **Ecología Austral** 8(2):201-210. PDF

74. Schulze, E., M. Caldwell, J. Canadell, H. A. Mooney, R. B. Jackson, D. Parson, R. Scholes, **O. E. Sala**, and P. Trimborn. 1998. Downward flux of water through roots (i.e. inverse hydraulic lift) in dry Kalahari sands. **Oecologia** 115(4):460-462. PDF

73. Golluscio, R., **O. E. Sala**, and W. K. Lauenroth. 1998. Differential use of large summer rainfall events by shrubs and grasses: a manipulative experiment in the Patagonian steppe. **Oecologia** 115(1-2):17-25. PDF

72. Paruelo, J., E. Jobbágy, **O. E. Sala**, W. K. Lauenroth, and I. Burke. 1998. Functional and structural convergence of temperate grassland and shrubland ecosystems. **Ecological Applications** 8(1):194-206. PDF

71. Jackson, R. B., **O. E. Sala**, J. M. Paruelo, and H. A. Mooney. 1998. Ecosystem water fluxes for two grasslands in elevated CO2: a modeling analysis. **Oecologia** 113(4):537-546. PDF

70. Chapin, F. S. I., **O. E. Sala**, I. C. Burke, J. P. Grime, D. U. Hooper, W. K. Lauenroth, A. Lombard, H. A. Mooney, A. R. Mosier, S. Naeem, S. W. Pacala, J. Roy, W. Steffen, and D. Tilman. 1998. Ecosystem consequences of changing biodiversity. **BioScience** 48(1):45-52. PDF

69. Chapin, F. S., B. H. Walker, R. J. Hobbs, D. U. Hooper, J. H. Lawton, **O. E. Sala**, and D. Tilman. 1997. Biotic controls over the functioning of ecosystems. **Science** 277(5325):500-504. PDF

68. **Sala, O. E.**, W. K. Lauenroth, and R. A. Golluscio. 1997. Plant functional types in temperate semi-arid regions. Pages 217-233. *in* T. M. Smith, H. H. Shugart, and F. I. Woodward, editors. **Plant Functional Types.** Cambridge University Press, Cambridge. PDF

67. Aguiar, M. R., and **O. E. Sala**. 1997. Seed distribution constrains the dynamics of the Patagonian steppe. **Ecology** 78(1):93-100. PDF

66. **Sala, O. E.**, and J. M. Paruelo. 1997. Ecosystem services in grasslands. Pages 237-252. *in* G.C. Daily, editor. **Nature's Services: Societal Dependence on Natural Ecosystems.** Island Press, Washington, D.C. PDF

65. Schulze, E. D., H. A. Mooney, **O. E. Sala**, E. Jobbágy, N. Buchmann, G. Bauer, J. Canadell, R. B. Jackson, J. Loreti, M. Oesterheld, and J. R. Ehleringer. 1996. Rooting depth, water availability, and vegetation cover along an aridity gradient in Patagonia. **Oecologia** 108(3):503-511. PDF

64. Canadell, J., R. B. Jackson, J. R. Ehleringer, H. A. Mooney, **O. E. Sala**, and E. D. Schulze.1996. Maximum rooting depth of vegetation types at the global scale. **Oecologia** 108(4):583-595. PDF

63. Jackson, R. B., J. Canadell, J. R. Ehleringer, H. A. Mooney, **O. E. Sala**, and E. D. Schulze.1996. A global analysis of root distributions for terrestrial biomes. **Oecologia** 108(3):389-411. PDF

62. **Sala, O. E**. 1996. Global change and ecological complexity. Pages 341-345. *in* B. Walker, and W. Steffen, editors. **Global Change and Terrestrial Ecosystems.** Cambridge University Press, Cambridge. PDF

61. **Sala, O. E.**, W. K. Lauenroth, and I. C. Burke. 1996. Carbon budgets of temperate grasslands and the effects of global change. Pages 101-119. *in* A. Breymeyer, D. O. Hall, J. M. Melillo, and G. I. Agren, editors. **Global Change: Effects on Coniferous Forests and Grasslands.** John Wiley and Sons, Chichester, New York. PDF

60. **Sala, O. E.**, W. K. Lauenroth, S. J. McNaughton, G. Rusch, and X. Zhang. 1996. Biodiversity and ecosystem functioning in grasslands. Pages 129-149. *in* H. A. Mooney, J. H. Cushman, E. Medina, **O. E. Sala**, and E. D. Schulze, editors. **Functional Role of Biodiversity: A Global Perspective.** J. Wiley and Sons, Chichester. PDF

59. Mooney, H. A., J. H. Cushman, E. Medina, **O. E. Sala**, and E. D. Schulze. 1996. Conclusions. Pages 475-484. *in* H. A. Mooney, J. H. Cushman, E. Medina, **O. E. Sala**, and E. D. Schulze, editors. **Functional Roles of Biodiversity: A Global Perspective.** J. Wiley and Sons, Chichester. PDF

58. Mooney, H. A., J. H. Cushman, E. Medina, **O. E. Sala**, and E. D. Schulze. 1996. Introduction. Pages 1-6. *in* H. A. Mooney, J. H. Cushman, E. Medina, **O. E. Sala**, and E. D. Schulze, editors. **Functional Roles of Biodiversity: A Global Perspective.** J. Wiley and Sons, Chichester. PDF

57. Mooney, H. A., J. H. Cushman, E. Medina, **O. E. Sala**, and E. D. Schulze, Editors. 1996. **Functional Roles of Biodiversity: A Global Perspective.** John Wiley & Sons, Chichester. PDF

56. **Sala, O. E.**, and M. R. Aguiar. 1996. Origin, maintenance, and ecosystem effect of vegetation patches in arid lands. Pages 29-32. *in* N. West, editor. **Rangelands in a Sustainable Biosphere.** Society for Range Management, Denver. PDF

55. Aguiar, M. R., J. M. Paruelo, **O. E. Sala**, and W. K. Lauenroth. 1996. Ecosystem responses to changes in plant functional type composition: an example from the Patagonian steppe. **Journal of Vegetation Science** 7(3):3381-390. PDF

54. Melillo, J. M., I. C. Prentice, G. D. Farquhar, E. D. Schulze, and **O. E. Sala**. 1996. Terrestrial biotic responses to environmental change and feedbacks to climate. Pages 444-481. *in* J. T. Houghton, L. G. Meira Filho, B. A. Callander, N. Harris, A. Kattenberg, and K. Maskells, editors. **Climate Change 1995: The Science of Climate Change.** Cambridge University Press, Cambridge. PDF

53. Parton, W., J. Scurlock, D. Ojima, D. Schimel, D. Hall, M. Coughenour, E. Garcia Moya, T. Gilmanov, A. Kamnalrut, J. Kinyamario, T. Kirchner, T. Kittel, J. Menaut, **O. E. Sala**, R. Scholes, and J. van Veen. 1995. **Impact of climate change on**

grassland production and soil carbon worldwide. Global Change Biology 1:13-22. PDF

52. Paruelo, J. M., W. K. Lauenroth, H. E. Epstein, I. C. Burke, M. R. Aguiar, and **O. E. Sala**. 1995. Regional climatic similarities in the temperate zones of North and South America. **Journal of Biogeography** 22:915-925. PDF

51. Jackson, R. B., Y. Luo, Z. G. Cardon, **O. E. Sala**, C. B. Field, and H. A. Mooney. 1995. Photosynthesis, growth and density for the dominant species in a CO2-enriched grassland. **Journal of Biogeography** 22:221-225. PDF

50. **Sala, O. E.**, W. K. Lauenroth, S. J. McNaughton, G. Rusch, and X. Zhang. 1995. Temperate grasslands. Pages 361-366. *in* H. A. Mooney, J. Lubchenco, R. Dirzo and **O. E. Sala**, editors. **Global Biodiversity Assessment**, Cambridge University Press, Cambridge. PDF

49. **Sala, O. E.** 1995. Human-induced perturbations, biodiversity and ecosystem functioning. Pages 318-323. *in* H. A. Mooney, J. Lubchenco, R. Dirzo and **O. E. Sala**, editors. **Global Biodiversity Assessment**, Cambridge University Press, Cambridge. PDF

48. Cushman, J., R. Dirzo, A. Janetos, J. Lubchenco, H. A. Mooney, and **O. E. Sala**. 1995. Conclusions. Pages 446-452. *in* H. Mooney, J. Lubchenco, R. Dirzo, and **O. E. Sala**, editors. Biodiversity and Ecosystem Functioning: Ecosystem analyses. **Global Biodiversity Assessment**, Cambridge University Press, Cambridge. PDF

47. Cushman, J., R. Dirzo, A. Janetos, J. Lubchenco, H. A. Mooney, and **O. E. Sala**. 1995. Introduction. Page 335. *in* H. A. Mooney, J. Lubchenco, R. Dirzo, and **O. E. Sala**, editors. Biodiversity and Ecosystem Functioning: Ecosystem Analyses. **Global Biodiversity Assessment**, Cambridge University Press, Cambridge. PDF

46. Cushman, J., R. Dirzo, A. Janetos, J. Lubchenco, H. A. Mooney, and **O. E. Sala**. 1995. Conclusions. Pages 323-325. *in* H. A. Mooney, J. Lubchenco, R. Dirzo, and **O. E. Sala**, editors. Biodiversity and Ecosystem Functioning: Basic Principles. **Global Biodiversity Assessment**, Cambridge University Press, Cambridge. PDF

45. Cushman, J., R. Dirzo, A. Janetos, J. Lubchenco, H. A. Mooney, and **O. E. Sala**. 1995. Introduction. Pages 281-282. *in* H. A. Mooney, J. Lubchenco, R. Dirzo, and **O. E. Sala**, editors. Biodiversity and Ecosystem Functioning: Basic Principles. **Global Biodiversity Assessment**, Cambridge University Press, Cambridge. PDF

44. Mooney, H. A., J. Lubchenco, R. Dirzo, and **O. E. Sala**. 1995. Biodiversity and ecosystem functioning: ecosystem analyses, section 6. **Global Biodiversity Assessment**, Cambridge University Press, Cambridge. 1, 2, 3.

43. Mooney, H. A., J. Lubchenco, R. Dirzo, and **O. E. Sala**. 1995. Biodiversity and ecosystem functioning: basic principles, section 5. **Global Biodiversity Assessment**, Cambridge University Press, Cambridge. PDF

42. Oesterheld, M., and **O. E. Sala**. 1995. Modelos ecológicos tradicionales y actuales para interpretar la dinámica de la vegetación: el caso del pastizal de la Pampa Deprimida. **Revista Argentina de Producción Animal** 14:9-14. PDF

41. Paruelo, J. M., and **O. E. Sala**. 1995. Water losses in the Patagonian steppe: a modelling approach. **Ecology** 76(2):510-520. PDF

40. Golluscio, R. A., P. A. Roset, **O. E. Sala**, and J. M. Paruelo. 1994. Modelos en ecología. **Ecología Austral** 4(1):123-132. PDF

39. Lauenroth, W. K., **O. E. Sala**, D. P. Coffin, and T. B. Kirchner. 1994. Recruitment of Bouteloua gracilis in the shortgrass steppe: a simulation analysis of the role of soil water. **Ecological Applications** 4(4):741-749. PDF

38. Jackson, R. B., **O. E. Sala**, C. B. Field, and H. A. Mooney. 1994. CO2 alters water use, carbon gain, and yield for the dominant species in a natural grassland. **Oecologia** 98(3-4):257-262. PDF

37. Soriano, A., **O. E. Sala**, and S. B. Perelman. 1994. Patch structure and dynamics of a Patagonian steppe. **Vegetatio** 111(2):127-135. PDF

36. Aguiar, M. R., and **O. E. Sala**. 1994. Competition, facilitation, seed distribution, and the origin of patches in a Patagonian steppe. **Oikos** 70(1):26-34. PDF

35. Paruelo, J. M., and **O. E. Sala**. 1993. The effect of global change on maize production in the Argentinean pampas. **Climate Research** 3:161-167. PDF

34. Mooney, H. A., and **O. E. Sala**. 1993. Science and sustainable use. **Ecological Applications** 3:564-566. PDF

33. Golluscio, R. A., and **O. E. Sala**. 1993. Plant functional types and ecological strategies in Patagonian forbs. **Journal of Vegetation Science** 4(6):839-846. PDF

32. McNaughton, S. J., **O. E. Sala**, and M. Oesterheld. 1993. Comparative ecology of African and South American arid to subhumid ecosystems. Pages 548-567. *in* P. Goldblatt, editor. **Biological Relationships between Africa and South America.** Yale University Press, New Haven. PDF

31. Oesterheld, M., **O. E. Sala**, and S. J. McNaughton. 1992. The effect of animal husbandry on herbivore-carrying capacity at a regional scale. **Nature** 356(6366):234-236. PDF

30. Lauenroth, W. K., and **O. E. Sala**. 1992. Long term forage production of North American shortgrass steppe. **Ecological Applications** 2(4):397-403. PDF

29. **Sala, O. E.**, W. K. Lauenroth and W. J. Parton. 1992. Long term soil water dynamics of the shortgrass steppe. **Ecology** 73(4):1175-1181. PDF

28. Aguiar, M. R., A. Soriano, and **O. E. Sala**. 1992. Competition and facilitation in the recruitment of grass seedlings in Patagonia. **Functional Ecology** 6(1):66-70. PDF

27. **Sala, O. E**. 1992. Achieving a sustainable biosphere: an international endeavour. **Trends in Ecology and Evolution** 7(10):324-325. PDF

26. **Sala, O. E**. 1992. Structure and function. Pages 387-395. *in* A. Soriano (editors) Río de la Plata Grasslands in R.T. Coupland, editor. **Ecosystems of the World, Volume 8A, Natural Grasslands.** Elsevier Scientific Publishing Company, Amsterdam. PDF

25. Huntley, B. J., E. Ezcurra, E. R. Fuentes, K. Fujii, P. J. Grubb, W. Haber, J. R. E. Harger, M.M. Holland, S. A. Levin, J. Lubchenco, H. A. Mooney, V. Neronov, I. Noble, H. R. Pulliam, P. S. Ramakrishnan, P. G. Risser, **O. E. Sala**, J. Sarukhan, and W. G. Sombroek. 1991. A sustainable biosphere: the global imperative. **Ecology International** 20:1-14. PDF

24. Fernández, R. J., **O. E. Sala**, and R. A. Golluscio. 1991. Woody and herbaceous aboveground production of a Patagonian steppe. **Journal of Range Management** 44(5):434-437. PDF

23. Biondini, M. E., W. K. Lauenroth, and **O. E. Sala**. 1991. Correcting estimates of net primary production: are we overestimating plant production in rangelands? **Journal of Range Management** 44(3):194-198. PDF

22. Oesterheld, M., and **O. E. Sala**. 1990. Grazing effect upon seedling establishment: the role of seed and safe-site availability. **Journal of Vegetation Science** 1(3):353-358. PDF

21. Paruelo, J. M., and **O. E. Sala**. 1990. Characterization of the floods in the Flooding Pampa (Buenos Aires, Argentina): water table dynamics. **Turrialba** 40:5-11. PDF

20. **Sala, O. E.**, R. A. Golluscio, W. K. Lauenroth and A. Soriano. 1989. Resource partitioning between shrubs and grasses in the Patagonian steppe. **Oecologia** (Berl) 81(4):501-505. PDF

19. **Sala, O. E.**, M. E. Biondini, and W. K. Lauenroth. 1989. Bias in estimates of primary production: an analytical solution. **Ecological Modelling** 44(1):43-55. PDF

18. **Sala, O. E.**, W. J. Parton, L. A. Joyce, and W. K. Lauenroth. 1988. Primary production of the central grassland region of the United States: spatial pattern and major controls. **Ecology** 69(1):40-45. PDF

17. Milchunas, D. G., **O. E. Sala**, and W. K. Lauenroth. 1988. A generalized model of the effects of grazing by large herbivores on grassland community structure. **American Naturalist** 132(1):87-106. PDF

16. **Sala, O. E**. 1988. The effect of herbivory on vegetation structure. Pages 317-330. *in* M. J. A.Werger, P. J. M. van der Aart, H. J. During, and J. T. A. Verhoeven, editors. **Plant Form and Vegetation Structure: Adaptation, Plasticity, and Relation to Herbivory.** SPB Academic Publishing, The Hague, Netherlands. PDF

15. Senft, R. L., M. B. Coughenour, D. W. Bailey, L. R. Rittenhouse, **O. E. Sala**, and D. M. Swift. 1987. Large herbivore foraging and ecological hierarchies. **BioScience** 37(11):789-799. PDF

14. Lauenroth, W. K., **O. E. Sala**, D. G. Milchunas, and R. W. Lathrop. 1987. Root dynamics of Bouteloua gracilis during short-term recovery from drought. **Functional Ecology** 1(2):117-124. PDF

13. Soriano, A., and **O. E. Sala**. 1986. Emergence and survival of Bromus setifolius seedlings in different microsites of the Patagonian arid steppe. **Israel Journal of Botany** 35(2):91-100. PDF

12. **Sala, O. E.**, M. Oesterheld, R. J. C. León, and A. Soriano. 1986. Grazing effect upon plant community structure in subhumid grasslands of Argentina. **Vegetatio** 67(1):27-32. PDF

11. **Sala, O. E**. 1986. The energy analysis of food production systems and the role of animal production: a review. **Turrialba** 36(1):91-97. PDF

10. **Sala, O. E.**, and W. K. Lauenroth. 1985. Root profiles and the ecological effect of light rainshowers in arid and semiarid regions. **American Midland Naturalist** 114(2):406-408. PDF

9. Soriano, A., and **O. E. Sala**. 1983. Ecological strategies in a Patagonian arid steppe. **Vegetatio** 56(1):9-15. PDF

8. Cauhépé, M., R. J. C. León, **O. E. Sala**, and A. Soriano. 1982. Pastizales naturales y pasturas cultivadas, dos sistemas complementarios y no opuestos. **Revista Facultad de Agronomía** 3(1):1-11. PDF

7. **Sala, O. E.**, W. K. Lauenroth, and W. J. Parton. 1982. Plant recovery following prolonged drought in a shortgrass steppe. **Agricultural Meteorology** 27(1-2):49-58. PDF

6. **Sala, O. E.**, W. K. Lauenroth, and C. P. P. Reid. 1982. Water relations: a new dimension for niche separation between Bouteloua gracilis and Agropyron smithii in North American semiarid grasslands. **Journal of Applied Ecology** 19(2):647-657. PDF

5. **Sala, O. E.**, and W. K. Lauenroth. 1982. Small rainfall events: an ecological role in semiarid regions. **Oecologia** 53(3):301-304. PDF

4. **Sala, O. E.**, A. Soriano, and S. Perelman. 1981. Water relations of the major components of a grassland in the Salado River Basin. **Revista Facultad de Agronomía** 2(1):1-10. PDF

3. **Sala, O. E.**, W. K. Lauenroth, W. J. Parton, and M. J. Trlica. 1981. Water status of soil and vegetation in a shortgrass steppe. **Oecologia (Berl.)** 48(3):327-331. PDF

2. **Sala, O. E.**, V. A. Deregibus, T. Schlichter, and H. Alippe. 1981. Productivity dynamics of a native temperate grassland in Argentina. **Journal of Range Management** 34(1):48-51. PDF

1. Soriano, A., **O. E. Sala**, and R. J. C. Leon. 1980. Actual and potential vegetation of the Coiron Amargo prairie in the SW Chubut. **Boletin de la Sociedad Argentina de Botánica** 19(1-2):309-314. PDF