THE UNIVERSITY OF CONNECTICUT

Biography, Bibliography and Professional Summary
of
John A. Silander, Jr., Professor
Department of Ecology and Evolutionary Biology

Revised: 08-2016

Education:

B.A.	1967	Pomona College
M.A.	1969	University of Michigan
Ph.D.	1976	Duke University

Experience:

1969-71	Instructor in Biology, Kpandu Secondary School, Ghana, Peace Corps Program
1976-2013	Assistant Professor to Full Professor, University of Connecticut
2014-present	Research Professor, University of Connecticut
1977-78	Fulbright-Hays Fellow, Australian National University, Canberra
1999-2000, 2006	Visiting Professor, Institute for Plant Conservation and Department of Botany, University of Cape Town, South Africa
2006	Visiting Distinguished Professor Weed Science Center, Utsunomiya University, Japan
2000-2013	Co-Chair of the Center for Conservation and Biodiversity, University of Connecticut

Professional Societies:
American Botanical Society
American Society of Naturalists
Ecological Society of America
International Biogeography Society
Society for Conservation Biology

Honors or Distinctions:
National Institutes of Health Pre-doctoral Fellowship in Genetics, 1971-76 at Duke University
Fulbright-Hays Fellow, Australia, 1977-78
Ecological Society of America George Mercer Award for the best paper published in the field of ecology, 1996
ERDAS Award in Remote Sensing for best paper published in 1998
2004 Faculty Excellence Award in Research, University of Connecticut Alumni Board of Directors
Elected member of the Connecticut Academy of Science and Engineering, 2010.

National/International Service:
National Science Foundation Panel Member, 1984, 1993-1995, 2003-2005, 2008-2012, 2014
Board of Trustees for Connecticut Chapter, The Nature Conservancy, Vice-Chair 2002-2007, Co-Chair Conservation

Committee 2002-2009.
International Advisory Board, Center for Advanced Studies in Ecology and Biodiversity, Univ. Catolica de Chile 2002-2005
Associate Editor, Oecologia 2005-2013
Associate Editor, Animal Conservation 2006-2009

State/Local Service: DEP Natural Resource Working Group - Climate Change Impacts – 2009-2010
Connecticut Invasive Plants Council (appointed) 2011-present
Connecticut Invasive Plant Working Group (appointed) 2011-present
Mansfield Town Conservation Commission (appointed) 1995-present; Vice-Chair 2000-2015

Field of Specialization: Plant Ecology and Evolution, Conservation Biology, Biogeography

Research Interests: Population, Evolutionary, Community and Landscape Aspects of Plant Ecology, Conservation Biology, Biodiversity and Biogeography. Invasive species biology, Phenology.

Major University Service: University Senate, elected 1996-2009
University Senate Courses and Curricula Committee 1999-2004
University Senate Faculty Standards Committee 2004-2009
College of Liberal Arts and Sciences, Dean's Advisory Committee for Promotion and Tenure 2002-2005.
Chancellor's Faculty Review Board 1998-2001
Chancellor's Research Advisory Committee 1993-96
Research Foundation Advisory Council Member 1990-95
University Fulbright Committee 2001-2005
University Study Abroad Committee 2010-2012
Director, Graduate Studies for EEB 1989-1999
Chair, Graduate Admissions and Awards for EEB 1989-1999.

Selected Publications (from over 100):

Journal Articles (peer reviewed), Books and Book Chapters:

Primack, R. B. and J. A. Silander, Jr. 1975. Measuring the relative importance of different pollinators to plants. Nature 255: 143-144.

Silander, J. A., Jr. and R. B. Primack. 1978. Pollination intensity and seed set in the evening primrose (*Oenothera fruticosa*). Am. Midl. Natur. 100: 213-216.

Silander, J. A., Jr. 1978. Density dependent control of reproductive success in *Cassia biflora*. Biotropica 10: 292-296.

Trenbath, B. R. and J. A. Silander, Jr. 1978. Bare zones under eucalypts and the toxic effects of frass of insects feeding on the leaves. Aust. Seed Science Newsl. 4: 13-18.

Silander, J. A., Jr. 1979. Microevolution and clonal structure in *Spartina patens*. Science 203: 658-660.

Silander, J. A., Jr. and J. Antonovics. 1979. The genetic basis of the ecological amplitude of *Spartina patens*. I. Morphometric and physiological traits. Evolution 33: 1114-1127.

Trenbath, B. R. and J. A. Silander, Jr. 1980. The effects of insect frass falling from *Eucalyptus globulus* spp. *bicostata* on associated vegetation. Aust. Seed Science Newsl. 6: 13-18.

Silander, J. A., Jr. and J. Antonovics. 1982. Analysis of interspecific interactions in a coastal plant community - A perturbation approach. Nature 298: 557-560.

Silander, J. A., Jr., B. R. Trenbath, and L. R. Fox. 1983. Chemical interference among plants mediated by grazing insects. Oecologia 58: 415-417.

Silander, J. A., Jr. 1983. Demographic variation in the Australian desert cassia under grazing pressure. Oecologia 60: 227-233.

Silander, J. A., Jr. 1983. Principles of Biology Lab Manual: 14 sessions in plant biology, genetics, evolution and ecology. 141 pp. University of Connecticut.

Silander, J. A., Jr. 1984. The genetic basis of ecological amplitude of *Spartina patens*. III. Allozyme variation. Botanical Gazette 145(4): 569-577.

Pacala, S. W. and J. A. Silander, Jr. 1985. Neighborhood models of plant population dynamics. I. Single-species populations of annuals. American Naturalist 125: 385-411.

Silander, J. A., Jr. and S. W. Pacala. 1985. Neighborhood predictors of plant performance. Oecologia 66: 256-263.

Silander, J. A., Jr., B. R. Trenbath and L. R. Fox. 1985. The ecological importance of insect frass: allelopathy in eucalypts. Oecologia 67: 118-120.

Silander, J. A., Jr. 1985. The genetic basis of the ecological amplitude of *Spartina patens*. II. Variance and correlation analysis. Evolution 39: 1034-1052.

Silander, J. A., Jr. 1985. Review of: Perspectives on Plant Population Ecology. Quarterly Review of Biology. 60: 354-355.

Silander, J. A., Jr. 1985. Microevolution in clonal plants. *In* J.B.C. Jackson, L. W. Buss and R. Cook (eds.). The Population Biology and Evolution of Clonal Organisms. Yale University Press pp. 107-152.

Pacala, S. W. and J. A. Silander, Jr. 1987. Neighborhood interference among velvet leaf (*Abutilon theophrasti*) and pigweed (*Amaranthus retroflexus*). Oikos 48: 217-224.

Thrall, P. H., S. W. Pacala, and J. A. Silander, Jr. 1989. Oscillatory dynamics of populations of an annual weed species (*Abutilon theophrasti*). Journal of Ecology 77: 1135-1149.

Pacala, S. W. and J. A. Silander, Jr. 1990. Field tests of neighborhood population dynamic models of two annual weed species. Ecological Monographs 60(1): 113-134.

Silander, J. A., Jr. and S. W. Pacala. 1990. The application of plant population dynamic models to understanding plant competition. pp. 67-91 *In* G. D. Tilman and J. Grace (eds.). Perspectives on Plant Competition. Academic Press, San Diego, CA

Miller, G. A. and J. A. Silander, Jr. 1991. Control of the distribution of giant rosette species of *Puya* in the Ecuadorian paramos. I. Elevation limits and microsite preference. Biotropica 23(2): 124-133.

Cain, M. L., S. W. Pacala and J. A. Silander, Jr. 1991. Stochastic simulation of clonal growth in the tall goldenrod, *Solidago altissima*. Oecologia 88: 477-485.

Barrett, J. P. and J. A. Silander, Jr. 1992. Seedling recruitment limitation in white clover (*Trifolium repens*). American Journal of Botany 79: 643-649.

Capossela, A., J. A. Silander, Jr., R. K. Jansen, B. Bergen and D. R. Talbot. 1992. Nuclear ribosomal DNA variation among ramets and genets of white clover. Evolution 46: 1240-1247.

Pacala, S. W., C. D. Canham and J. A. Silander, Jr. 1993. Forest models defined by field measurements: I. The design of a northeastern forest simulator. Canadian Journal of Forest Research 23:1980-1988.

Silander, J. A., Jr. 1994. Book Review: Silvertown, J. W., J. Lovett Doust (1993) Introduction to Plant Population Biology. Blackwell Scientific Publications. Ecoscience 1: 276-277.

Ribbens, E., J. A. Silander, Jr. and Stephen W. Pacala. 1994. Seedling recruitment in forests: calibrating models to predict patterns of tree seedling dispersion. Ecology 75: 1794-1806.

Silander, J. A., Jr. 1994. ArcView for Windows version 1.0. Software review. Conservation Biology 8: 1167-1168.

Pacala, S. W., C. D. Canham, J. A. Silander, Jr. and R. E. Kobe. 1994. Sapling growth as a function of resources in a north temperate forest. Canadian Journal of Forest Research 24: 2172-2183.

Civco, D. L., Y. Wang, and J. A. Silander, Jr. 1995. Characterizing forest ecosystems in Connecticut by integrating Landsat TM and SPOT panchromatic data. Proceedings 1995 ASPRS/ACSM 2: 216-224.

Cain, M. L., B. Kahn, J. A. Silander, Jr., and H. L. Reynolds. 1995. Genetic variability and tradeoffs among reproductive traits in white clover (*Trifolium repens* L.). Canadian Journal of Botany 73: 505-511.

Cain, M. K., S. W. Pacala, J. A. Silander, Jr. and M-J. Fortin. 1995. Neighborhood models of clonal growth in the white clover, *Trifolium repens*. American Naturalist 145: 888-917.

Kobe, R. K., S. W. Pacala, J. A. Silander, Jr. and C. D. Canham. 1995. Juvenile tree survivorship as a component of shade tolerance. Ecological Applications 5: 517-532.

Ratsirarson, J., J. A. Silander, Jr., and A. F. Richard. 1996. Conservation and management of a threatened Madagascar palm species: *Neodypsis decaryi*, Jumelle. Conservation Biology 10(1): 40-52.

Pacala, S. W., C. D. Canham, J. Saponara, J. A. Silander, Jr., R. E. Kobe and E. Ribbens. 1996. Forest models defined by field measurements: Estimation, error analysis and dynamics. Ecological Monographs 66(1): 1-43.

Ratsirarson, J. and J. A. Silander, Jr. 1996. Structure and dynamics in *Nepenthes madagascariens* pitcher plant micro-communities. Biotropica 28: 218-227.

Ratsirarson, J. and J. A. Silander, Jr. 1996. Reproductive biology of the threatened Madagascar triangle palm: *Neodypsis decaryi*, Jumelle. Biotropica 28: 737-745.

Ratsirarson, J. and J. A. Silander, Jr. 1997. Factors affecting the distribution of a threatened Madagascar palm species, *Dypsis decaryi* (Jum.) Beetje & J. Dransfield. Principes 41: 100-111.

Zhou, J. D. L. Civco, and J. A. Silander, Jr. 1997. A wavelet transform method to merge Landsat TM and SPOT panchromatic data. International Journal of Remote Sensing. 19(4):734-757.

Rozzi, R., E. Hargrove, J.J. Armesto, S.T.A. Pickett and J.A. Silander, Jr. 1998. "Natural drift" as a post-modern metaphore. Revista Chilena de Historia natural. 71:5-17.

Mickelson, J. G., Jr., D. L. Civco, and J. A. Silander, Jr. 1998. Delineating forest canopy species in the Northeastern United States using multi-temporal TM imagery and GPS referenced field data. Photogrammetric Engineering and Remote Sensing 64: 891-904.

Caspersen, J. P., J. A. Silander, Jr., S. W. Pacala, and C. D. Canham. 1999. Modeling the competitive dynamics and distribution of tree species along moisture gradients. *In*: D. J. Mladenoff and W. L. Baker (eds.) Advances in Spatial Modeling for Forest Landscape Change. pp. 14-41. Cambridge University Press, NY.

Silander, J. A., Jr. and Debra M. Klepeis. 1999. The invasion ecology of Japanese barberry (*Berberis thunbergii*) in the New England landscape. Biological invasions 1:189-201.

Silander, J.A., Jr. 2000 Temperate forests: plant species biodiversity and conservation. In (S.A. Levin ed.) Encyclopedia of Biodiversity. 5:607-626 Academic Press, New York.

Rozzi, R, J.A. Silander, Jr., J.J. Armesto, P. Feinsinger, and R. Massardo. 2000. Three levels of integrating ecology with conservation of South American temperate forests: the initiative of the

Institute of Ecological Research, Chiloe, Chile. Biodiversity and Conservation 9:1199-1217.

de Gouvenain, R. C. and J. A. Silander, Jr. 2000. Structure and composition of a forest fragment in Eastern Madagascar in relation to human disturbance. *In* W.R. Lourençand S.W. Goodman (eds.) Diversité et Endémsime á Madagascar. Mémoires de la Société de Biogéographie, Paris. Pp 45-62.

Hill, J.D. and J.A. Silander, Jr. 2000. Distribution and dynamics of two ferns: *Dennstaedtia punctilobula* (Dennstaedtiaceae) and *Thelypteris noveboracensis* (Thelypteridaceae) in a northeast mixed hardwoods-hemlock forest. American Journal of Botany 88: 894-902

Farnsworth, E.J., K.E. Holsinger, L.J. Mehrhoff, N. Murray, J. Preston, and J.A. Silander, Jr. 2001. The REAL team: a cooperative student training program in rapid ecological assessment. BioScience 51(10): 874-879.

Rozzi R., C. Anderson, F. Massardo & J. Silander Jr. 2001. Diversidad biocultural subantartica: una Mirada desde el Parque Etnobotanico Omora. Chloris Chilensis 4(2): http://www.chlorischile.cl

Silander, J.A., Jr. 2002. The ultimate answer … is 42. [Featured Review of S.J. Hubbell's book: The Unified Neutral Theory of Biodiversity and Biogeography.]. Journal of Biogeography 29:299-301.

Agarwal, D.K.., A. E. Gelfand and J. A. Silander, Jr. 2002. Investigating tropical deforestation using two stage spatially misaligned regression models. Journal of Agricultural, Biological and Environmental Statistics 7(3):420-439. [American Statistical Society Award paper for 2000].

Rozzi, R., J. Silander, O. Dollenz, F. Massardo, C. Anderson and B. Connolly. 2002. Arboles natives y exoticos en las plazas de Magallanes. Anales del Instituto de la Patagonia, Serie Ciencias Naturales 30: 143-146.

Laurie, H. and J.A. Silander, Jr. 2002. Geometric constraints and spatial pattern of species richness: critique of range-based null models. Diversity and Distributions. 8:351-364.

de Gouvenain, R. and J.A. Silander, Jr. 2003. Littoral Forest. *In* S. M. Goodman and J. P. Benstead (eds.) The Natural History of Madagascar. Field Museum of Natural History, University of Chicago Press, Chicago, IL. pp 103-109.

Ratsirarson, J, and J. A. Silander, Jr. 2003. Pollination ecology of plant communities in the dry forests of southwestern Madagascar. . *In* S. M. Goodman and J. P. Benstead (eds.) *The Natural History of Madagascar*. Field Museum of Natural History, University of Chicago Press, Chicago, IL. pp 272-275

Rozzi R, F Massardo, J Silander Jr., C Anderson & A Marin. 2003. Conservación biocultural y ética ambiental en el extremo austral de América: oportunidades y dificultades para el bienestar ecosocial. In Figueroa E and J Simonetti (eds). Biodiversidad y Globalización, pp. 51-85. Editorial Universitaria, Santiago, Chile.

Rozzi R, F Massardo, J Silander Jr., C Anderson, O Dollenz & A Marin. 2003. El Parque Etnobotánico Omora: una alianza públicoprivada para la conservación biocultural en el confín del mundo. Ambiente y Desarrollo. 19(1): 43-55.

de Gouvenian, R.C. and J.A. Silander, Jr. 2003. Do tropical storm regimes influence the structure of lowland rainforests? Biotropica 35(2): 166-180.

Ranoiavonasy, J., J. Ratsirarson, B. Ramamonjisoa, D. Rasolofomampianina, J-A Rakotoarisoa, R.E. Dewar and J. A. Silander, Jr. 2003. Dynamique de la Couverture Forestiere de la Region d'Analanjorofo: Aspects Historique et Socio-Economique. Recherche pour le Developpement Serie Sciences Biologiques No. 20. Centre d'Information et de Documentation Scientifique et Technique, Antananarivo, Madagascar. 113pp.

Mehrhoff, L., J.A. Silander, Jr., S. Leicht and E. Mosher. 2003-10. IPANE: Invasive Plant Atlas of New England. Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, CT, USA. URL: http://invasives.eeb.uconn.edu/ipane/

Latimer. A.M , J.A. Silander Jr , A.E. Gelfand , A.G. Rebelo and D.M. Richardson. 2004. Quantifying threats to biodiversity from invasive alien plants and other factors: a case study from the Cape Floristic Region. South African Journal of Science 100: 81-86.

Rozzi R., F Massardo, C Anderson and J. A. Silander Jr. 2004. Ten Dimensions of a Biocultural Conservation Approach at the Austral Tip of the Americas. Sustainable Communities Review. 7: 76-83

Gelfand, A.E., A.M. Schmidt, S. Wu, J.A. Silander, Jr., A. Latimer and A.G. Rebelo. 2005. Modelling species diversity through species level hierarchical modeling. Journal of the Royal Statistical Society, Section C Applied Statistics 54(1):1-20 (plus appendices)

Agarwal, D.K., J.A. Silander, Jr., A.E. Gelfand, R.E. Dewar and J.G. Mickelson, Jr. 2005. Tropical Deforestation in Madagascar: Analyses using hierarchical, spatially explicit, Bayesian regression models. Ecological Modelling 185(1): 105-131.

Gelfand, A.E., J.A. Silander, Jr., S. Wu, A. Latimer, P. Lewis, A. G. Rebelo and M. Holder. 2006. Explaining species distribution patterns through hierarchical modeling. Bayesian Analysis 1: 42-92 (plus comments and rejoinders pp 93-104)

Latimer, A.M., J.A. Silander, Jr. and R.M Cowling. 2005. Neutral theory reveals isolation and rapid speciation in a biodiversity hotspot. Science. 309:1722-1725 (plus appendices).

Latimer, A.M., S. Wu, A. E. Gelfand and J.A. Silander, Jr. 2006. Building statistical models to analyze species distributions. Ecological Applications 16(1): 33-50; plus Appendices: Ecological Archives: A016-003-A1 and A016-003-S1

Leicht, S.A., J.A. Silander, Jr. and K.E. Lerose. 2005. Assessing the competitive ability of Japanese stilt grass, *Microstegium vimineum* (Trin.) A. Camus. Journal of the Torrey Botanical Society 132 (4): 573-580.

Etienne R.S., A. M. Latimer, J.A. Silander, Jr. and R. M. Cowling. 2006. Comment on "Neutral ecological theory reveals isolation and rapid speciation in a biodiversity hotspot." Science 311:610b.

Rozzi R., F Massardo, C Anderson, K. Heidinger and J. Silander Jr. 2006 Ten Criteria for Biocultural Conservation at the Southern Tip of the Americas: The Approach of the Omora Ethnobotanical Park. Ecology and Society 11(1) (on-line publication).

Gelfand, A.E., A.M. Latimer, S. Wu, and J.A. Silander. 2006. Building statistical models to analyze species distributions. *In* Clark, J.S. and A.E. Gelfand (eds.), Hierarchical Modelling for the Environmental Sciences: Statistical Methods and Applications. Oxford University Press, Oxford.

Leicht, S. A. and J. A. Silander Jr. 2006. Differential Responses of Invasive *Celastrus orbiculatus* (Celastraceae) and Native *C. scandens* to Changes in Light Quality. American Journal of Botany 93(7): 972-977.

Barber, J.J., A.E. Gelfand and J.A. Silander. 2006. Modeling map position error to infer about true feature location. Canadian Journal of Statistics. 34(4): 1–18.

Bond, W. and J. A. Silander, Jr. 2007. Springs and wire plants: anachronistic defenses against Madagascar's extinct elephant birds. Proceedings of the Royal Society B: Biological Sciences. 274:1985-1992.

Leicht-Young, S.A. , J. A. Silander Jr. and A. M. Latimer. 2007. Comparative performance of invasive and native *Celastrus* species in heterogeneous environments. Oecologia 154(2):273-282.

de Gouvenain, R. C., R. K. Kobe, and J. A. Silander, Jr. 2007. Partitioning of understory light and dry-season soil moisture gradients among seedlings of four rain-forest tree species in Madagascar. Journal of Tropical Ecology 23(5): 569-579.

Silander, J.A., Jr., I. Ibanez and L.J. Mehrhoff. 2007. The Biology and Ecology of Invasive Species – the Importance of International Collaboration in Predicting the Spread of Invasive Species. Proceedings of the NIAES International Symposium (Tsukuba, Japan): 8-17.

Ricardo R, JJ Armesto, B. Goffinet, W. Buck, F. Massardo, J. A. Silander, MTK Arroyo, S Russell, CB Anderson, L Cavieres, and JBCallicott 2008. Changing lenses to assess biodiversity: patterns of species richness in sub-Antarctic plants and implications for global conservation. Frontiers in Ecology and the Environment 6(3): 131–137.

Bond, W., J. A. Silander, Jr., J. Ranaivonasy and J. Ratsirarson 2008. The antiquity of Madagascar's grasslands and the rise of C_4 grassy biomes. Journal of Biogeography 35(10): 1743-1748 (with editorial commentary on the article).

Ibáñez, I., J. A. Silander, A. M. Wilson, N. LaFleur, N. Tanaka and Ikutaro Tsuyama. 2009. Multi-variate forecasts of potential distributions of invasive plant species. Ecological Applications 19(2): 359–375

Mosher, E.S., J.A. Silander, Jr. and A.M. Latimer 2009. The role of land-use history in major invasions by woody plant species in the northeastern North American Landscape. Biological Invasions 11(10): 2317-2328

Latimer, A.M., S. Banerjee, H. Sang, E. S. Mosher and J. A. Silander, Jr. 2009. Hierarchical models facilitate spatial analysis of large data sets: a case study on invasive plant species in the northeastern United States. Ecology Letters 12: 144–154.

Leicht-Young, S.A., H. O'Donnell, A.M. Latimer and J.A. Silander, Jr. 2009. Effects of an invasive plant species, Celastrus orbiculatus, on soil composition and processes. American Midland Naturalist 161: 219-231.

Latimer, A.M., J.A. Silander, Jr. A.G. Rebelo and G.F. Midgley. 2009. Experimental biogeography: the role of environmental gradients in high geographic diversity in Cape Proteaceae. Oecologia 160:151–162

Primack, R.B., I. Ibáñez, H. Higuchi, S.D. Lee, A.J. Miller-Rushing, A. Wilson and J.A. Silander, Jr. 2009. Spatio-temporal mismatches in species responses to climate change. Biological Conservation 142: 2569–2577

Ibáñez, I., J.A. Silander Jr., J.M. Allen, S.A. Treanor, and A.M. Wilson. 2009. Identifying hotspots for plant invasions and forecasting focal points of further spread. Journal of Applied Ecology 46, 1219–1228

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Ferketic, J.S., A.M. Latimer, and J.A. Silander Jr. 2010. Conservation justice in metropolitan Cape Town: A study at the Macassar Dunes Conservation Area. Biological Conservation. 143(5): 1168-1174.

Ibáñez, I., R. B. Primack, A. J. Miller-Rushing, E. Ellwood, H. Higuchi, S.D. Lee, H. Kobori, and J. A. Silander, Jr. 2010. Forecasting phenology under global warming. Philosophical Transactions of the Royal Society (B): Biological Sciences 365: 3247-3260

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Chakraborty, A., A. E. Gelfand, A. M. Wilson, A. M. Latimer and J. A. Silander, Jr. 2011. Point Pattern Modeling for Degraded Presence-Only Data over Large Regions. Journal of the Royal Statistical Society, Section C Applied Statistics 60(5): 757-776

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Ellwood, E.R., J. M. Diez, I. Ibáñez, R. B. Primack, H. Kobori, H..Higuchi, J. A. Silander, Jr. 2012. Disentangling the paradox of insect phenology: are temporal trends reflecting the response to warming? Oecologia 168(4): 1161-1171.

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Allen, J.M., S.G. Obae, M.H. Brand, J.A. Silander, Jr., K. L. Jones, S. O. Nunziata, and S. L. Lance. 2012. Development and characterization of microsatellite markers for *Berberis thunbergii* (Berbericaceae). American Journal of Botany 99(5):E220-E222.

Ahmed, K.F., G. Wang, J. A. Silander, Jr., A.M. Wilson, J.M. Allen, R. Horton, and Richard Anyah. 2013. Statistical downscaling and bias correction of climate model outputs for climate change impact assessment in the U.S. Northeast. Global and Planetary Change. 100: 320-332

Chen, G-Q, C-B. Zhang, M.A. Ling, S. Qiang, J.A. Silander, Jr. and L.L Qi. 2013. Biotic homogenization caused by the invasion of *Solidago canadensis* in China. Journal of Integrative Agriculture. 12(5): 835-845.

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Allen, J.M., T. J. Leininger, J.D. Hurd Jr., D.L Civco, A.E. Gelfand and J. A. Silander Jr. 2013. Socioeconomics drive woody invasive plants in New England through forest Fragmentation. Landscape Ecology. 28:1671-1686 [DOI 10.1007/s10980-013-9916-7]

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Merow, C., A. M. Latimer, A. Wilson, S. McMahon, A. Rebelo, J. A. Silander Jr. 2014. Demographically driven distribution models: Advantages of using integral projection models to incorporate demography into species distribution models. *Ecography* 37(12): 1167–1183. DOI: 10.1111/ecog.00839

Xie, Y., K. F. Ahmed, J. M. Allen, A. M. Wilson, and J. A. Silander Jr. 2015. Green-up of deciduous forest communities of northeastern North America in response to climate variation and climate change. *Landscape Ecology* 30:109–123. doi:10.1007/s10980-014-0099-7

Leicht-Young, S.A., S.T. Bois and J.A. Silander, Jr. 2015. Impacts of Celastrus-primed soil on common native and invasive woodland species. *Plant Ecology* 216(4): 503-516.

Mitchell, N., T.E. Moore, H. K. Mollmann, J. E. Carlson, K. Mocko, H. Martinez-Cabrera, C. Adams, J. A. Silander Jr., C. S. Jones, C. D. Schlichting, and K. E. Holsinger. 2015. Functional Traits in parallel evolutionary radiations and trait-environment associations in the Cape Floristic Region of South Africa. *American Naturalist* 185(4): 525-537.

Wilson, A.M., A. M. Latimer and J. A. Silander Jr. 2015. Climatic controls on ecosystem resilience: Postfire regeneration in the Cape Floristic Region of South Africa. *Proceedings of the National Academy of Science*. 112(29): 9058–9063.

Xie, Y., X. Wang, and J.A. Silander, Jr. 2015. Autumn phenology: Deciduous forest responses to temperature, precipitation, and drought imply complex climate change impacts. *Proceedings of the National Academy of Science* 112(44): 13585–13590 doi: 10.1073/pnas.1509991112

Aiello-Lammens, M.E., J. A. Slingsby , C. Merow , H. K. Mollmann , D. Euston-Brown , C.S. Jones and J. A. Silander Jr. 2016. Processes of community assembly in an environmentally heterogeneous, high biodiversity region. *Ecography.* 39: 001–016.

Merow, C., J. Allen, M. Aiello-Lammens, J.A. Silander Jr. 2016. Building better range models with Maxent and Point Process Models by integrating spatially explicit information. *Global Ecology and Biogeography* 12:1022-1036.

Bond, W. and J. A. Silander, Jr. 2016. Springs, wire plants and the Elephant Birds of Madagascar. *Veld & Flora* 102(2): 77-79.

Wenjie Wang, W., C.Zhang, J. M. Allen, W. Li, M. A. Boyer, K. Segerson, and J.A. Silander Jr. 2016. Analysis and Prediction of Land Use Changes Related to Invasive Species and Major Driving Forces in the State of Connecticut. *Land 5*(3), 25; doi:10.3390/land5030025

External Grant Support (from over $13 million total):

NSF, Ecology Program.
"Competition and Coexistence Along an Environmental Gradient".
1980 - 1982. ($19,956).

NSF, Ecology Program.
"Dynamics and Structure of Annual Plant Communities on Tilled Lands"
(S. Pacala, P.I., J. Silander, Jr. Co-P.I.)
1984 - 1986. ($50,000).

Smithsonian Excess Currency Grants Program.
"Population Ecology of Weeds in India"
(J. Silander, Jr. P.I.)
1984 - 1985. ($7,900).

NSF, Ecology Program.
"The Maintenance of Rare Tree Species in the Dipterocarp Forests of Borneo" $183,871, 1986-1989.
R. Primack and P. Ashton, P.I.'s, (J. Silander, Jr. Collaborator - $3,000 portion)

NSF, Ecology Program.
"Dynamics of Perennial Communities"
(S. Pacala, P.I., J. Silander, Jr. Co-P.I.),
1987 - 1990. ($129,085).

NSF, Population Biology and Physiological Ecology Program.
"Dynamics and Evolution in Clonal Plant Populations"
(J. Silander, Jr. P.I.; S. Pacala, Co-P.I.),
1988 - 1990. ($65,000).

NSF, Population Biology Program, REU supplemental grant. $4,000, 1988-1989.
NSF, Population Biology Program, REU supplemental grant. $3,700, 1989-1990.
NSF, Ecology Program, REU supplemental grant. $4,000, 1989-1990.
NSF, Ecology Program.
"Forest Dynamics in Heterogeneous Environments: Empirical Studies of Spatially Explicit Models"
(S. Pacala, P.I., J. Silander, Jr. and C. Canham, Co-P.I.'s),
1990-1993. ($269,000).

Department of Energy.
"A Theory of Forest Dynamics: Spatially Explicit Models and Issues of Scale."
(S. Pacala, P.I., S. Levin, Co-P.I., J. Silander, Jr. Collaborator),
1990-1993. ($180,000).

NASA.
"Calibration and Testing of Population Dynamics Models at Multiple Spatial Scales Using Remote Sensing"
(W. Philpot, P.I., S. Pacala and S. Levin, Co-P.I.'s, J. Silander, Jr. Collaborator),
1990-1993. ($326,786).

The Nature Conservancy Grant.
"The Conservation Biology of Rare Plant Species in Connecticut."
(Michelle Zielinski, P.I., J. Silander, Jr. Co-P.I.)
1990-1993. ($4,648).

U.S.A.I.D. Biodiversity Support Grant.
"Conserving Local Biodiversity in Madagascar: The Population Biology and Conservation of an Endangered Keystone Palm (*Neodypsis decaryi*)"
(J. Silander, Jr. and J. Ratsirarson, P.I.'s.)
1991-1993. ($14,982).

National Geographic Society.
"Structure, function, and dynamics of pitcher plant (*Nepenthes* sp.) micro-communities in Madagascar"
(J. Silander, Jr. and J. Ratsirarson, P.I.'s.)
1992-1993. ($5,560).

Elias Howe, Yankee Ingenuity Initiative, Department of Economic Development.
"Computing Environments for Advanced Geoprocessing Research and Education."
(Co-P.I., 1993, $75,000)

Connecticut Department of Transportation.
Feasibility study for the "Establishment of a GIS/GPS Resource Center at the University of

Connecticut."
(Co-P.I., 1993-1994, $30,000, Silander's portion $2500)

NSF, Ecology Program.
"Dynamics of eastern North American forest systems: issues of scale"
(J. Silander, Jr. Co-P.I)
1993-1996. ($300,000) [UConn portion $58,889]

NASA.
"Landscape dynamics of northeastern forests"
(J. Silander, Jr. Co-P.I.)
1993-1996. ($402,630) [UConn portion $69,883]

NASA.
Global Change Fellowship
(J. Silander, Jr. P.I., J. Caspersen, student fellow)
1994-1997. ($66,000)

EPA
Graduate Student Fellowship
(J. Silander, Jr. P.I., C. Craddock, student fellow)
1995-1998. ($102,000)

Inter-American Foundation Fellowship
(J. Silander, Jr., P.I., R. Rozzi, student fellow
1998-2001 ($37,751)

National Geographic Society Grant
"Pollination ecology of endemic species in Madagascar's dry, spiny forests"
(J. Silander, Jr. P.I., J. Ratsirarson, Co-P.I.)
1995-1998. ($15,580)

John D. and Catherine T. MacArthur Foundation
(J. Silander, Jr. P.I., J. Ratsirarson, Co-P.I.)
"Integrated research and training program on conserving the biodiversity of forest and woodland ecosystems of Madagascar"
1996-1999. ($128,000)

NSF, International Program
Dissertation Improvement Grant
(J. Silander, Jr. P.I., Steve Pousty, Ph.D. student recipient)
"Dispersal as a mechanistic basis for landscape ecology: the role of scale and heterogeneity"
1998-2000. ($7,000)

John D. and Catherine T. MacArthur Foundation
(J. Silander, Jr. and R. Dewar P.I.'s)
"Population, natural resources and standing forests along the eastern coast of Madagascar"

1998-2002. ($240,000)

The Nature Conservancy
(J. Silander, Jr. P.I.)
"Factors controlling the distribution and abundance of Japanese barberry (Berberis thunbergii) in Connecticut" 1998-1999. ($2,248)

John D. and Catherine T. MacArthur Foundation
(J. Ratsirarson, P.I., J. Silander, Jr. co-P.I.)
"Conservation of Coastal Wet Tropical Forests, Tampolo Madagascar." 2000-2002 ($30,000)

The National Park Service, USDI
(J. Silander, P.I. with L. Mehrhoff, co-P.I.)
"Plant Invasives of the Northeastern National Parks." 2000-2003 ($37,200)

National Center for Ecological Analysis and Synthesis.
(J. Silander, P.I. with A. Gelfand co-P.I.)
"Working group on Macro-ecology and Biogeography of Southern Africa." 2000-2003 ($90,980)

NSF, Ecology, Statistics and Geography Programs
(J. Silander, P.I. with A. Gelfand co-P.I.)
"Stochastic Modeling for Geographic Diversity of Plants Species Richness in South Africa." 2001-2005 ($227,500)

U.S.D.A.
(J. Silander, P.I. and L. Mehrhoff, co-P.I.)
"An integrated approach to invasive plant species control: A New England Consortium." 2001-2005, ($1,266,000)

USDA - NRI – CREES: NRI #05.2217
(J. Silander, P.I. and L. Mehrhoff, co-P.I.)
"Integrating Predictive Modeling and Volunteer Networks to Enhance Early Detection and Rapid Response to Invasive Species."
2005-2007. $460,000

NSF, NSF, Ecology, Statistics and Climate Change.
(J. Silander, PI, Alan Gelfand co-PI)
"Collaborative QEIB Research: Spatio-temporal Models of species distributions and biodiversity at high resolution - integrating climate and population responses."
2005-2010. $850,000 (UConn portion: $450,000; Duke portion: $400,000)

US Geological Survey/NBII.
(J. Silander, co-PI, L. Mehrhoff, PI).
"Early Detection of Invasive Species"
2005-2013 (cooperative agreement grant): $45,882

USDA (Congressional Earmark).

(J. Silander, co-PI, Y. Li PI) UConn: Lead Institution in Consortium with the Universities of Vermont and Maine
"New England Center for Invasive Species: A Multi-State Initiative to Neutralize Economically and Environmentally Harmful Invasive Plants."
2006-2011. $393,892; 2008-2010: $293,705; 2009-2011: $276,120, 2010-2013: $276,120

NSF-OSIE – Global Scientists and Engineers
(J. Silander, PI, co-PIs: K. Holsinger, C. Jones and C. Schlichting)
"International Research Experience for Students – Biodiversity Hotspots: Ecological and Evolutionary Patterns and Process in the Cape Floristic Region of South Africa"
2006-2010: $149,923.

NSF-DEB (Ecological Biology)
(J. Silander, co-PI with M. Rubega, PI)
"Seed-dispersal mutualisms: the spatio-temporal dynamics of fleshy-fruited plants and their avian dispersers on landscapes."
07/01/07-03/31/12: $123,104

NSF DEB – (Population Biology)
(J. Silander co-PI with K. Holsinger PI).
"Evolutionary radiations in South African Proteaceae"
2007-2011: $476,410

EPA/USDA. (J. Silander PI. Co-PIs: I Ibanez, G. Wang, D. Civco, A. Gelfand, C Reid) "A multi-scale approach to the forecast of potential distributions of invasive plant species." 06/01/08-05/31/13. $545,000.

NASA EARTH AND SPACE SCIENCE NATIONAL FELLOWSHIP
(J. SILANDER, JR. P.I., A.WILSON, STUDENT FELLOW)
2009-2012. ($90,000)

NSF-DEB (Ecological Biology) (J. Silander PI with R. Primack (Boston University) and I. Ibanez (University of Michigan) "Collaborative Research: Spatiotemporal models of phenology: Integrating the effects of climate change on plants and animals." 05/01/09-05/31/14. $187,575.

NSF-Dimensions of Biodiversity (J.Silander, K. Holsinger, C. Jones co-PIs with C. Schlichting PI). "Dimensions of Biodiversity: Parallel Evolutionary radiations in Protea and Pelargonium in the Greater Cape Floristic Region" 2011-2015 ($3,000,000: collaborative grant with University of California Davis and University of Chicago; University of Connecticut as lead institution $2,000,000 portion).

NSF REU-PUI supplement "Dimensions of Biodiversity Workforce REU-Broadening Participation Supplements" (J. Silander, PI) to NSF grant "Dimensions of Biodiversity: Parallel Evolutionary radiations in Protea and Pelargonium in the Greater Cape Floristic Region" 2014 $20,000.

MacArthur Foundation "Strengthening Advance Training and research in Sustainable Biodiversity Conservation and Climate Change Science and Policy in Madagascar" (J. Ratsirarson PI, Université

d'Antananarivo, J. Silander, co-PI, with W. Bond, University of Cape Town, co-PI) 2012-2014 $400,000

NSF- Dynamics of Coupled Natural and Human Systems (CNH) - Exploratory Project: "Interactive Effects of Economics, Public Policy, Land Use Change, and Invasive Plants in Long Island Sound Watersheds" (C. Zhang, PI, J. Allen, M. Boyer, K. Segerson, and J. Silander co-PIs) 2014-2016. $249,966

NASA – Biodiversity Scoping Program. "Monitoring dimensions of biodiversity in a mega-diverse region of Southern Africa: from traits to communities to ecosystems." (A. Wilson PI, J. Silander co-PI). 2016-2018. $236,984

Also from my laboratory:

NSF Postdoctoral Fellowship: R. Kobe 1996-1997

Fulbright Fellowship: Steve Pousty to Israel 1996-98

Fulbright Fellowship: Ricardo Rozzi from Chile 1996-1998

Switzer Foundation Fellowship: Roland de Gouvenain 1999-2000

NSF Postdoctoral Fellowship: Roland de Gouvenain 2001-2002

NSF Pre-Doctoral Fellowship: Andrew Latimer 2002-2005

USDA Competitive Grants Program, Plant Responses to the Environment. "Carbohydrate economy in relation to ecological patterns of tree regeneration" 1993-95, $100,000, developed by Rich Kobe and submitted with C. Canham, P.I. and R. Chazdon, Co-P.I.

NASA Space Science Consortium (Connecticut) Grant to John Caspersen, 1994 ($5,000)

NASA Space Science Consortium (Connecticut) Grant to Steve Pousty, 1995, 1996 ($5,000)

NASA Space Science Consortium (Connecticut) Grant to Eric Mosher, 2003-2004 ($5,000)

NSF: "Dispersal as a mechanistic basis for landscape ecology: the role of scale and heterogeneity". 1997-1999, $100,000. Developed by Steve Pousty and submitted by P. Turchin as P.I.

Fondo de las Americas. (R. Rozzi, P.I) "Conservacion Biologicaca y Cultural en el Extremo Austral de America."2001-2002 ($US 50,000)

Fondo Regional de las Artes y las Cultura. (R. Rozzi, P.I) "Integracion de componentes ecologicos y socio-culturales de la comuna de Navarino: exposiciones y talleres educativos." 2001-2002, ($US 3,500)

Stewart and Constance Greenfield Foundation "Cape Horn Biosphere Initiative" (R. Rozzi, P.I. 2002 $5000) [awarded through the Center for Conservation and Biodiversity.]

NASA Space Science Consortium (Connecticut) Grant to Adam Wilson, 2008 ($5,000)

NSF-EAPSI Fellowship to Jenica Allen, summer 2008: Japan

North American Nature Photographers Association Summit College Photography Scholarship (February 2010) to Adam Wilson.

NSF-Global Change and Tropical Ecosystems participant Fellowship 2009-2010. Pan-American Advanced Studies Institute, Costa Rica to Adam Wilson.

NSF-IRES Fellow: "Sub-Antarctic Biocultural Conservation Program", Chile: University of North Texas & Universidad de Magallanes. 2010-2011. To Adam Wilson.

Other information:

Ph.D. Advisor: Prof. Janis Antonovics, FRS, Univ. Virginia
Post doctoral Advisor: Prof. Ralph Slatyer, FRS, Australian National Univ. (deceased)

Thesis Advisees (11 MS; 21 PhD students) and Post-doctoral-Scholars (12 scientists)— J. Allen (U New Hampshire); C. Ariori (Boston); J. Barber (Arizona St U); J. Barrett (née Panos) (UConn-Sea Grant); S. Treanor Bois (Linda Loring Nature Foundation, Nantucket, MA); M. Cain (freelance biology textbook writer); J. Casperson (U Toronto); A. Chakraborty (U Arkansas); Steven Citron-Pousty (Openshift Redhat Corp.); R. de Gouvenain (Rhode Island Coll); J. Diez (UC Riverside); A. Finzi (Boston U); James Hill (UConn); I. Ibanez (U Michigan); L. Johnson (Kansas State U); R. Kobe (Michigan State U); M. Aiello-Lammens (Pace U); A. Latimer (UC Davis); N. Lefleur (Kean U); S. Leicht Young (née Leicht) (RK&K, Baltimore); T. MacPherson (SUNY Oneonta); Cory Merow (Yale); Gregory A. Miller (American Hiking Society); J. Ratsirarson (U Antananarivo); E. Ribbens (Western Illinois U); R. Rozzi (U North Texas; U Magellanes, Chile); A. Schmidt (U Federal do Rio de Janeiro, Brazil); J. Slingsby (SAEON, South Africa); A. Wilson (SUNY Buffalo); Yingying Xie (SUNY Buffalo).