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EDUCATION

- 1989 Ph.D. in Ecology and Evolution, State University of New York at Stony Brook
Thesis: "Population cycles of mammals: theory and evidence"
1983 B.Sc. (high honors) in Biology, Middle East Technical University, Ankara, Turkey

CAREER

- 2021 to present Co-Chair, Department of Ecology and Evolution, Stony Brook University, New York
2007 to present Professor, Department of Ecology and Evolution, Stony Brook University, New York
2012 to 2015 Director, Graduate Program in Ecology and Evolution, Stony Brook University, New York
1988 to 2007 Senior Scientist, Applied Biomathematics, Setauket, New York
1993 Post-doctoral fellow, Inst. of Animal Ecology, Univ. of Lausanne, Switzerland

PROFESSIONAL ACTIVITIES AND MEMBERSHIPS

- 2016 to present IUCN Species Survival Commission (SSC) Task Force on Assessing Conservation Success, which has developed ***The IUCN Green Status of Species***, a new global standard to measure species recovery and assess conservation impact.
- 2014 to present Regional Editor (North America), *Conservation Biology*
- 2001 to present Chair, [Red List Standards and Petitions Committee](#), IUCN Species Survival Commission (SSC).
- 2001 to present IUCN SSC Red List Committee
- 2012 to present IUCN SSC Climate Change Specialist Group Steering Committee
- 2019 to present IUCN SSC Plants of Turkey Red List Authority
- 2014 to 2018 Coordinating Lead Author and Expert, Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), deliverable on "Policy support tools and methodologies for scenario analysis and modelling of biodiversity and ecosystem services."
- 2014 to 2016 IUCN SSC De-Extinction Task Force
- 1999 to 2000 IUCN Red List Criteria Review Working Group, which revised the Red List criteria.
- 2011 to 2013 National Research Council, Committee on Ecological Risk Assessment under FIFRA and ESA
- 2009 to 2010 Consultant, Turkish National Red List of Butterflies
- 2019 to present Consultant, Red Data Book of Endemic Vascular Plants of Turkey
- 2004 to 2005 Scientific Advisory Panel, Middle Rio Grande Endangered Species Act Collaborative Program convened to assist in the recovery efforts for the Rio Grande Silvery Minnow.
- 2002 to 2005 Lead Author, Millennium Ecosystem Assessment, Condition Working Group
- 2004 to 2014 Editorial Board, *Conservation Biology*
- 1999 to 2014 Editorial Board, *Population Ecology*
- 2005 to 2008 Associate Editor, *Acta Oecologica*
- 2001 to 2014 Editorial Advisory Board, *Turkish Journal of Zoology*
- 2007 to 2014 Book Review consultant, *The Quarterly Review of Biology*
- 2000 Member of team translating *Science and Creationism: A View from the National Academy of Sciences* to Turkish, which was then published by the Turkish Academy of Sciences
- 1999 Consultant, United Nations program "Transfer of Knowledge Through Expatriate Nationals". Workshops, graduate student training, and lectures to governmental agencies in Turkey

AWARDS

- 2012 George Rabb Award for Conservation Innovation, given by IUCN Species Survival Commission to individuals in recognition of delivering transformational advances in conservation theory and practice.
- 2005 Zayed International Prize for the Environment, awarded to the authors of the Millennium Ecosystem Assessment.
- 2002 Istanbul University Award – Sciences

PUBLICATIONS ([Total citations](#) over 22,000; h-index=73, as of January 2022)

Books:

- Akçakaya, H.R., J.D. Stark, and T.S. Bridges (editors). 2008. *Demographic Toxicity: Methods in Ecological Risk Assessment*. Oxford University Press, New York.
- Akçakaya, H.R., M.A. Burgman, O. Kindvall, C. Wood, P. Sjögren-Gulve, J. Hatfield, and M.A. McCarthy (editors). 2004. *Species Conservation and Management: Case Studies*. Oxford University Press, New York.
- Akçakaya, H.R., M.A. Burgman and L.R. Ginzburg. 1999. *Applied Population Ecology: principles and computer exercises using RAMAS EcoLab 2.0*. Second edition. Sinauer Associates, Sunderland, Massachusetts. 285 pp.
Reviewed in: *J. of Mammalogy; BioScience; Plant Science Bull.; Quarterly Rev. of Biol.; Fisheries; Life Sciences Educational Computing*.
- Akçakaya, H.R., M.A. Burgman and L.R. Ginzburg. 2002. [*Applied Population Ecology*]. **Japanese edition**. Translated by H. Kusuda, K. Onoyama, and Y. Konno; published by Bun-ichi Sogo Shuppan Co., Tokyo.
- Burgman, M.A., S. Ferson and H.R. Akçakaya. 1993. *Risk Assessment in Conservation Biology*. Chapman & Hall, London.
Reviewed in: *Trends in Ecol. Evol.; Quarterly Rev. of Biol.; J. of Ecology; Biol. Conserv..*

Major Policy Documents and International Initiatives:

- International Union for Conservation of Nature (IUCN) Standards and Petitions Committee. 2001-2022. [Guidelines for Using the IUCN Red List Categories and Criteria. Versions 1 - 15.](#)
- International Union for Conservation of Nature (IUCN). 2021. *IUCN Green Status of Species: A global standard for measuring species recovery and assessing conservation impact*. Version 2.0. IUCN, Gland, Switzerland. <https://doi.org/10.2305/IUCN.CH.2021.02.en>
- International Union for Conservation of Nature (IUCN) Species Conservation Task Force. 2021. [Background and Guidelines for the IUCN Green Status of Species](#). Version 1.0.
- IPBES. 2016. [The methodological assessment report on scenarios and models of biodiversity and ecosystem services](#). Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Bonn, Germany. 348 pages.
- International Union for Conservation of Nature (IUCN), Species Survival Commission. 2016. [IUCN SSC Guiding principles on Creating Proxies of Extinct Species for Conservation Benefit. Version 1.0.](#) IUCN Species Survival Commission, Gland, Switzerland.
- National Research Council. 2013. *Assessing risks to endangered and threatened species from pesticides*. Committee on Ecological Risk Assessment under FIFRA and ESA, National Research Council. National Academies Press, Washington, DC. <https://doi.org/10.17226/18344>
- DeFries, R., S. Pagiola and 17 others. 2005. [Analytical Approaches for Assessing Ecosystems and Human Well-Being](#). Pages 37-71 in *Ecosystems and Human Well-Being: Current State and Trends*, R. Hassan, R. Scholes, and N. Ash, editors. *The Millennium Ecosystem Assessment Series*. Island Press, Washington, DC.
- International Union for Conservation of Nature (IUCN). 2001. [IUCN Red List Categories and Criteria: Version 3.1.](#) IUCN, Gland, Switzerland and Cambridge, UK

Peer-reviewed articles:

- Şen[†], B. and H.R. Akçakaya. 2022. Inter-specific variability in demographic processes affects abundance-occupancy relationships. *Oecologia* <https://doi.org/10.1007/s00442-021-05085-5>
- Cazalis, V., M. Di Marco, S.H.M. Butchart, H.R. Akçakaya, M. González-Suárez, C. Meyer, V. Clausnitzer, M. Böhm, A. Zizka, P. Cardoso, A.M. Schipper, S.P. Bachman, B.E. Young, M. Hoffmann, A. Benítez-López, P.M. Lucas, N. Pettorelli, G. Patoine, M. Pacifici, T. Jörger-Hickfang, T.M. Brooks, C. Rondinini, S.L.L. Hill, P. Visconti, and L. Santini. 2022. Bridging the research-implementation gap in IUCN Red List assessments. *Trends in Ecology & Evolution*. <https://doi.org/10.1016/j.tree.2021.12.002>
- Şen[†], B. and H.R. Akçakaya. 2022. Fecundity and density dependence can be estimated from mark-recapture data for making population projections. *Ornithological Applications* 124:1-14
<https://doi.org/10.1093/ornithapp/duab064>
- Groner, V., O. Nicholas, T. Mabhaudhi, R. Slotow, H.R. Akçakaya, G. Mace, R. Pearson. 2022. Climate change, land cover change, and overharvesting threaten a widely used medicinal plant in South Africa. *Ecological Applications* <https://doi.org/10.1002/eap.2545>
- Fordham, D.A., S.C. Brown, H.R. Akçakaya, B.W. Brook, S. Haythorne, A. Manica, K.T. Shoemaker, J.J. Austin, B. Blonder, J. Pilowsky, C. Rahbek, and D. Nogues-Bravo. 2022. Process-explicit models reveal pathway to extinction for woolly mammoth using pattern-oriented validation. *Ecology Letters* 25:125–137.
<https://doi.org/10.1111/ele.13911>
- Grace M.K., Akçakaya H.R., and 200 other authors. 2021. Testing a global standard for quantifying species recovery and assessing conservation impact. *Conservation Biology* 35:1833–1849. <https://doi.org/10.1111/cobi.13756>
- Grace, M.K., H. R. Akçakaya, J.W. Bull, C. Carrero, K. Davies, S. Hedges, M. Hoffmann, B. Long, E.M.N. Lughadha, G.M. Martin, F. Pilkington, M.C. Rivers, R.P. Young, and E.J. Milner-Gulland. 2021. Building robust, practicable counterfactuals and scenarios to evaluate the impact of species conservation interventions using inferential approaches. *Biological Conservation* 261:109259. <https://doi.org/10.1016/j.biocon.2021.109259>
- Grace, M., E. Bennett, H.R. Akçakaya, C. Hilton-Taylor, M. Hoffmann, R.K. Jenkins, E.J. Milner-Gulland, A. Nieto, R. Young, B. Long. 2021. IUCN launches Green Status of Species: a new standard for species recovery. *Oryx* 55:651-652. <https://doi.org/10.1017/S0030605321000880>
- Akçakaya, H.R., A. Hochkirch, J.T. Bried, R.H.A. van Grunsven, J.P. Simaika, G. De Knijf, S. Henriques. 2021. Calculating population reductions of invertebrate species for IUCN Red List assessments. *Journal of Insect Conservation* 25:377-382. <https://doi.org/10.1007/s10841-021-00303-0>
- Akçakaya, H.R., A. Rodrigues, D.A. Keith, E.J. Milner-Gulland, E.W. Sanderson, S. Hedges, D.P. Mallon, M.K. Grace, B. Long, E. Meijaard, P.J. Stephenson. 2020. Assessing ecological function in the context of species recovery. *Conservation Biology* 34:561-571 <https://doi.org/10.1111/cobi.13425>
- Bird, J.P., R. Martin, H.R. Akçakaya, J. Gilroy, I.J. Burfield, S. Garnett, A. Symes, J. Taylor, Ç.H. Şekercioğlu, and S.H.M. Butchart. 2020. Generation lengths of the world's birds and their implications for extinction risk. *Conservation Biology* 34:1252-1261 <https://doi.org/10.1111/cobi.13486>
- Çiçek, K., C.C. Bilgin, D. Ayaz, M. Afsar, Y. Bayrakci, Ç.A. Pekşen, O. Cumhuriyet, İ.B. Ismail, M. Yenmiş, E. Üstündağ, C.V. Tok, and H.R. Akçakaya. 2020. Unsustainable harvest of Water Frogs in southern Turkey for the European market. *Oryx* <https://doi.org/10.1017/S0030605319000176>
- Stephenson, P.J., M. Grace, H.R. Akçakaya, A. Rodrigues, B. Long, D. Mallon, E. Meijaard, J.P. Rodriguez, R. Young, T. Brooks, C. Hilton-Taylor. 2019. Defining indigenous species range to account for geographic and taxonomic variation in the history of human impacts. *Conservation Biology* 33: 1211–1213
<https://doi.org/10.1111/cobi.13400>
- Grace, M., H.R. Akçakaya, E. Bennett, C. Hilton-Taylor, B. Long, E.J. Milner-Gulland, R. Young, M. Hoffmann. 2019. Using historical and paleoecological data to inform ambitious species recovery targets. *Philosophical Transactions B*. 374:20190297 <https://doi.org/10.1098/rstb.2019-0297>

[†] student or post-doc in the Akçakaya lab

Brooks, T.M., S.L. Pimm, H.R. Akçakaya, G.M. Buchanan, S.H.M. Butchart, W. Foden, C. Hilton-Taylor, M. Hoffmann, C.N. Jenkins, L. Joppa, B.V. Li, V. Menon, N. Ocampo-Peñuela, C. Rondinini. 2019. Measuring terrestrial area of habitat (AoH) and its utility for the IUCN Red List. *Trends in Ecology & Evolution* 34:977-986.
<https://doi.org/10.1016/j.tree.2019.06.009>

McCarthy, M.A., M.A. Burgman, F. Wei, F.C. Jarrad, C. Rondinini, C. Murcia, H.D. Marsh, H.R. Akçakaya, K.J. Esler, E.T. Game, and M.W. Schwartz. 2019. Plan s and publishing: Reply to lehtomäki et al. 2019. *Conservation Biology* 33:1203-1204.

Burgman, M., W. Fuwen, K. Esler, R. Akçakaya, M. McCarthy, C. Rondinini, E. Main, H. Marsh, F. Jarrad, C. Murcia, E. Game, and M. Schwartz. 2019. Open access and academic imperialism. *Conservation Biology* 33:5-6.
<https://doi.org/10.1111/cobi.13248>.

Foden W.B., B.E. Young, H.R. Akçakaya, R.A. Garcia, A. Hoffman, B.A. Stein, C.D. Thomas, C.J. Wheatley, D. Bickford, J.A. Carr, D. Hole, T. Martin, M. Pacifici, J.W. Pearce-Higgins, P.J. Platts, P. Visconti, J. Watson, B. Huntley. 2019. Climate change vulnerability assessment of species. *WIREs Climate Change* 10(1):e551
<https://doi.org/10.1002/wcc.551>

Akçakaya, H.R., E.L. Bennett, T.M. Brooks, M.K. Grace, A. Heath, C. Hilton-Taylor, M. Hoffmann, D.A. Keith, B. Long, D.P. Mallon, E. Meijaard, E.J. Milner-Gulland, A. Rodrigues, J.P. Rodriguez, P.J. Stephenson, S.N. Stuart, & R.P. Young. 2018. Quantifying species recovery and conservation success to develop an IUCN Green List of Species. *Conservation Biology* 32:1128–1138. <https://doi.org/10.1111/cobi.13112>

(Considered to be Version 1.0 of the global standard, [The IUCN Green Status of Species](#).)

Keith, D.A., H.R. Akçakaya, N.J. Murray. 2018. Scaling range sizes to threats for robust predictions of risks to biodiversity. *Conservation Biology* 32:322–332. <https://doi.org/10.1111/cobi.12988>

Akçakaya, H.R., D.A. Keith, M. Burgman, S.H.M. Butchart, M. Hoffmann, H.M. Regan, I. Harrison, E. Boakes. 2017. Inferring extinctions III: A cost-benefit framework for listing extinct species. *Biological Conservation* 214:336-342. <https://doi.org/10.1016/j.biocon.2017.07.027>

Keith, D.A., S.H.M. Butchart, H.M. Regan, I. Harrison, H.R. Akçakaya, A.R. Solow, M.A. Burgman. 2017. Inferring extinctions I: A structured method using information on threats. *Biological Conservation* 214:320-327.
<https://doi.org/10.1016/j.biocon.2017.07.026>

Rosa, I. M. D., H. M. Pereira, S. Ferrier, R. Alkemade, L. A. Acosta, H. R. Akcakaya, E. d. Belder, A. M. Fazel, S. Fujimori, M. Harfoot, K. A. Harhash, P. A. Harrison, J. Hauck, R. J. J. Hendriks, G. Hernández, W. Jetz, S. I. Karlsson-Vinkhuyzen, H. Kim, N. King, M. T. J. Kok, G. O. Kolomytsev, T. Lazarova, P. Leadley, C. J. Lundquist, J. G. Márquez, C. Meyer, L. M. Navarro, C. Nesshöver, H. T. Ngo, K. N. Ninan, M. G. Palomo, L. M. Pereira, G. D. Peterson, R. Pichs, A. Popp, A. Purvis, F. Ravera, C. Rondinini, J. Sathyapalan, A. M. Schipper, R. Seppelt, J. Settele, N. Sitas, and D. v. Vuuren. 2017. Multiscale scenarios for nature futures. *Nature Ecology & Evolution* 1:1416-1419.

Aiello-Lammens[†], M.A. and H.R. Akçakaya. 2017. Using global sensitivity analysis of demographic models for ecological impact assessment. *Conservation Biology* 31: 116-125.

Cullen, L., J.C. Stanton[†], F. Lima, A. Uezu, M.L.L. Perilli, and H.R. Akçakaya. 2016. Implications of fine-grained habitat fragmentation and road mortality for jaguar conservation in the Atlantic forest, Brazil. *PLoS ONE* 11(12): e0167372. doi:10.1371/journal.pone.0167372

Regehr, E.V., K.L. Laidre, H.R. Akçakaya, S.C. Amstrup, T.C. Atwood, N.J. Lunn, M. Obbard, H. Stern, G.W. Thiemann, and Ø. Wiig. 2016. Conservation status of polar bears (*Ursus maritimus*) in relation to projected sea-ice declines. *Biology Letters* 12: 20160556. <http://dx.doi.org/10.1098/rsbl.2016.0556>

Ryu[†], H.Y., K.T. Shoemaker[†], É. Kneip[†], A.M. Pidgeon, P.J. Heglund, B.L. Bateman, W.E. Thogmartin, and H.R. Akçakaya*. 2016. Developing population models with data from marked individuals. *Biological Conservation* 197:190–199.

* corresponding author

- Collen, B., N.K. Dulvy, K. Gaston, U. Gärdenfors, D. Keith, A. Punt, H. Regan, M. Böhm, S. Hedges, M. Seddon, S.H.M. Butchart, M. Hoffmann, S. Bachman, and H.R. Akçakaya. 2016. Clarifying misconceptions of extinction risk assessment with the IUCN Red List. *Biology Letters* 12: 20150843.
- Fordham, D.A., H.R. Akçakaya, J. Alroy, F. Saltré, T.M. Wigley, B.W. Brook. 2016. Predicting and mitigating future biodiversity loss using long-term ecological proxies. *Nature Climate Change* 6:909-916.
<https://www.nature.com/articles/nclimate3086>
- Bateman, B.L., A.M. Pidgeon, V.C. Radeloff, C.H. Flather, J. VanDerWal, H.R. Akçakaya, W.E. Thogmartin, T.P. Albright, S.J. Vavrus, and P.J. Heglund. 2016. Potential breeding distributions of U.S. birds predicted with both short-term variability and long-term average climate data. *Ecological Applications* 26:2720-2731.
- Brooks, T.M., H.R. Akçakaya, N.D. Burgess, S.H.M. Butchart, C. Hilton-Taylor, M. Hoffmann, D. Juffe-Bignoli, N. Kingston, B. MacSharry, M. Parr, L. Perianin, E.C. Regan, A.S.L. Rodrigues, C. Rondinini, Y. Shennan-Farpon, and B.E. Young. 2016. Analysing biodiversity and conservation knowledge products to support regional environmental assessments. *Nature Scientific Data* 3:160007.
- Prowse, T., C. Bradshaw, S. Delean, P. Cassey, R. Lacy, K. Wells, M. Aiello-Lammens[†], H.R. Akçakaya, B. Brook. 2016. An efficient protocol for the global sensitivity analysis of stochastic ecological models. *Ecosphere* 7(3):e01238. 10.1002/ecs2.1238
- Stanton[†], J.C., K.T. Shoemaker[†], R.G. Pearson, and H.R. Akçakaya*. 2015. Warning times for species extinctions due to climate change. *Global Change Biology* 21:1066–1077.
- Shoemaker[†], K.T. and H.R. Akçakaya. 2015. Inferring the nature of anthropogenic threats from long-term abundance records. *Conservation Biology* 29:238-249.
- Joppa, L. N., S. H. M. Butchart, M. Hoffmann, S. Bachman, H. R. Akçakaya, J. Moat, M. Böhm, R. A. Holland, A. Newton, B. Polidoro, and A. Hughes. 2015. Impact of alternative metrics on estimates of extent of occurrence for extinction risk assessment. *Conservation Biology* 30:362–370. <https://doi.org/10.1111/cobi.12591>
- Keith, D., H.R. Akçakaya, S.H.M. Butchart, B. Collen, N.K. Dulvy, E.E. Holmes, J.A. Hutchings, D. Keinath, M.K. Schwartz, A.O. Shelton, R.S. Waples. 2015. Temporal correlations in population trends: conservation implications from time-series analysis of diverse animal taxa. *Biological Conservation* 192:247–257.
- Bateman, B.L., A.M. Pidgeon, V.C. Radeloff, A.J. Allstadt, H.R. Akçakaya, W.E. Thogmartin, S.J. Vavrus and P.J. Heglund. 2015. The importance of range edges for an irruptive species during extreme weather events. *Landscape Ecology* 30:1095-1110.
- Shelton, A.O., J.A. Hutchings, R.S. Waples, D.M. Keith, H.R. Akçakaya, N.K. Dulvy. 2015. Maternal age effects on Atlantic cod recruitment and implications for future population trajectories. *ICES Journal of Marine Science*. 72:1769-1778.
- Pacifi, M., W.B. Foden, P. Visconti, J.E.M. Watson, S. H.M. Butchart, K.M. Kovacs, B.R. Scheffers, D.G. Hole, T.G. Martin, H.R. Akçakaya, R.T. Corlett, B. Huntley, D. Bickford, J.A. Carr, A.A. Hoffmann, G.F. Midgley, P. P. Kelly, R.G. Pearson, S.E. Williams, S.G. Willis, B. Young, C. Rondinini. 2015. Assessing species vulnerability to climate change. *Nature Climate Change* 5:215-225.
- Akçakaya*, H.R., S.H.M. Butchart, J.E.M. Watson, R.G. Pearson. 2014. Preventing species extinctions resulting from climate change. *Nature Climate Change* 4:1048-1049.
- Pearson, R.G., J.C. Stanton[†], K.T. Shoemaker[†], M.E. Aiello-Lammens[†], P.J. Ersts, N. Horning, D.A. Fordham, C.J. Raxworthy, H.Y. Ryu[†], J. McNees, and H.R. Akçakaya*. 2014. Life history and spatial traits predict extinction risk due to climate change. *Nature Climate Change* 4:217-221.
- Shoemaker[†], K.T., R.C. Lacy, M.L. Verant, B.W. Brook, T.M. Livieri, P.S. Miller, D.A. Fordham, and H.R. Akçakaya*. 2014. Effects of prey metapopulation structure on the viability of black-footed ferrets in plague-impacted landscapes: a metamodelling approach. *Journal of Applied Ecology* 51:735–745.
- Fordham, D.A., K.T. Shoemaker[†], N.H. Schumaker, H.R. Akçakaya, N. Clisby, and B.W. Brook. 2014. How interactions between animal movement and landscape processes modify local range dynamics and extinction risk. *Biology Letters* 10, 20140198.

- Bonebrake, T.C., A.D. Syphard, J. Franklin, K. E. Anderson, H. R. Akçakaya, T. Mizerek, C. Winchell, H. M. Regan. 2014. Fire management, managed relocation, and land conservation options for long-lived obligate seeding plants under global changes in climate, urbanization, and fire regime. *Conservation Biology* 28:1057-67.
- Keith, D.A. M. Mahony, H. Hines, J. Elith, T.J. Regan, J.B. Baumgartner, D. Hunter, G.W. Heard, N.J. Mitchell, K.M. Parris, T. Penman, B. Scheele, C.C. Simpson, R. Tingley, C.R. Tracy, M. West, and H.R. Akçakaya. 2014. Detecting extinction risk from climate change by IUCN Red List criteria. *Conservation Biology* 28:810-819.
- Fordham, D.A., H.R. Akçakaya, B.W. Brook, A. Rodríguez, P.C. Alves, E. Civantos, M. Triviño, M.J. Watts and M.B. Araújo. 2013. Adapted conservation measures are required to save the Iberian lynx in a changing climate. *Nature Climate Change* 3:899-903.
- Watts, M.J., D.A. Fordham, H.R. Akçakaya, M.E. Aiello-Lammens[†], B.W. Brook. 2013. Tracking shifting range margins using geographical centroids of metapopulations weighted by population density. *Ecological Modelling* 269:61-69.
- Fordham, D.A., H.R. Akçakaya, M. Araújo, D. Keith, B.W. Brook. 2013. Tools for integrating range change, extinction risk and climate change information into conservation management. *Ecography* 36:956-964 .
- Foden, W.B., S. H. M. Butchart, S. N. Stuart, J.-C. Vié, H. R. Akçakaya, A. Angulo, L. M. DeVantier, A. Gutsche, E. Turak, L. Cao, S. D. Donner, V. Katariya, R. Bernard, R. A. Holland, A. F. Hughes, S. E. O'Hanlon, S. T. Garnett, Ç. H. Şekercioğlu and G. M. Mace. 2013. Identifying the world's most climate change vulnerable species: a trait-based assessment of birds, amphibians and corals. *PLoS ONE* 8(6): e65427.
- Fordham, D.A., C. Mellin C, B.D. Russell, H.R. Akçakaya, C.J.A. Bradshaw, M.E. Aiello-Lammens[†], M.J. Caley, S.D. Connell, S. Mayfield, S.A. Shepherd, B.W. Brook. 2013. Population dynamics can be more important than physiological limits for determining range shifts under climate change. *Global Change Biology* 19:3224-3237.
- Akçakaya*, H.R., S. Ferson, M.A. Burgman, D.A. Keith, G.M. Mace and C.R. Todd. 2012. Commentary: IUCN classifications under uncertainty. *Environmental Modelling & Software* 38: 119-121.
- Harris, J.B.C., D.A. Fordham, P.A. Mooney, L.P. Pedler, M.B. Araújo, D.C. Paton, M.G. Stead, M.J. Watts, H.R. Akçakaya, and B.W. Brook. 2012. Managing the long-term persistence of a rare cockatoo under climate change. *Journal of Applied Ecology* 49: 785–794.
- Stanton[†], J.C., R.G. Pearson, N. Horning, P. Ersts, and H.R. Akçakaya*. 2012. Combining static and dynamic variables in species distribution models under climate change. *Methods in Ecology and Evolution* 3: 349–357.
- Fordham, D.A., H.R. Akçakaya, M. Araújo, J. Elith, D. Keith, R. Pearson, T.D. Auld, C. Mellin, J.W. Morgan, T.J. Regan, M. Tozer, M.J. Watts, M. White, B. Wintle, C. Yates, and B.W. Brook. 2012. Plant extinction risk under climate change: are forecast range shifts alone a good indicator of species vulnerability to global warming? *Global Change Biology* 18: 1357–1371.
- Chu-Agor, M.L., R. Muñoz-Carpena, G.A. Kiker, M.E. Aiello-Lammens[†], H.R. Akçakaya, M. Convertino, I. Linkov. 2012. Simulating the fate of Florida Snowy Plovers with sea-level rise: exploring research and management priorities with a global uncertainty and sensitivity analysis perspective. *Ecological Modelling* 224: 33-47.
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- Akçakaya, H.R. and C. C. Bilgin. 1988. Evaluation of efforts to save the Bald Ibis population in Birecik. In: *Proceedings of the 4th Environmental Science and Technology Conference*. O. Uslu, M.M. Evirgen and A. Müezzinoğlu, eds. Dokuz Eylül University, İzmir, Turkey.
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Software:

- Akçakaya, H.R. and W.T. Root. 2013. *RAMAS GIS: Linking Spatial Data with Population Viability Analysis*. Version 6.0. Applied Biomathematics, Setauket, New York. (Previous versions reviewed in: *Conservation Biology* 9:966-968, 1995; *Quarterly Review of Biology* 71:167-168, 1996).
- Akçakaya, H.R. and W.T. Root. 2007. *RAMAS Red List Professional: Spatial and Temporal Data Analysis for Threatened Species Classifications Under Uncertainty*. Applied Biomathematics, Setauket, New York.
- Akçakaya, H.R. and W.T. Root. 2003. *RAMAS Landscape: Integrating Metapopulation Viability with LANDIS Forest Dynamics Model* (version 1.0). Applied Biomathematics, Setauket, New York.
- Akçakaya, H.R., W.T. Root and S. Ferson. 2001. *RAMAS Red List: Threatened species classifications under uncertainty* (version 2.0). Applied Biomathematics, Setauket, New York.
- Akçakaya, H.R. 1994. *RAMAS Metapop: Viability Analysis for Stage-structured Metapopulations*. Version 1.0. Applied Biomathematics, Setauket, New York. (Reviewed in: *Quarterly Review of Biology* 70:381-382, 1995).
- Akçakaya, H.R. and S. Ferson. 1990. *RAMAS/space: Spatially Structured Population Models for Conservation Biology*. Applied Biomathematics, Setauket, New York.
- Ferson, S. and H.R. Akçakaya. 1990. *RAMAS/age: Modeling Fluctuations in Age-structured Populations*. Applied Biomathematics, Setauket, New York.

INVITED SYMPOSIA, SEMINARS AND WORKSHOPS

- Webinar: Workshop on the National Species Conservation Strategy of Turkey. 18 January 2022.
- Webinar: Istanbul University Journal Club Congress'21. 22 May 2021
- Seminar: Stony Brook University, Department of Ecology and Evolution, 30 October 2019.
- Seminar: University of Tennessee, Knoxville, Ecology and Evolutionary Biology Department, 25 October 2019.
- Workshop: The IUCN Red List Criteria: common misunderstandings. SSC Leaders' Meeting, Abu Dhabi, UAE. 7 October 2019
- Webinar: The IUCN Green List of Species: An Optimistic and Ambitious New Vision for Conservation. [Conservation Planning Specialist Group Webinar Series](#), 13 September 2019.

- Workshop: Red Book of the vascular plants of Turkey. Nezahat Gökyiğit Botanic Garden, Istanbul, Turkey. 25-28 January 2019.
- Seminar: School of Marine and Atmospheric Sciences, Stony Brook University. 28 September 2018.
- Seminar: Department of Biology, Hofstra University, New York. October 27, 2017.
- Seminar: Department of Ecology, Evolution, and Natural Resources, Rutgers- The State University of New Jersey. March 9, 2017.
- Seminar: Department of Ecology and Evolutionary Biology, University of Connecticut - Storrs. March 3, 2017.
- Lecture: II International Symposium of Ecology. Universidade Federal de São Carlos, SP, Brazil, 16-19 August 2016.
- Seminar: University of Melbourne, Victoria, Australia. November 25, 2015.
- Seminar: University of New South Wales, Sydney, Australia. November 20, 2015.
- Workshops: (i) Assessing climate change vulnerability of species. (ii) Applying the IUCN Red List categories and criteria. IUCN Species Survival Commission Leaders' Meeting. Abu Dhabi, UAE. 15-18 September 2015.
- Keynote address: Ecology and Evolutionary Biology Symposium, Ankara, Turkey. August 6, 2015.
- Seminar: The City College of New York. December 8, 2014.
- Author Meetings: "Methodological Assessment of Scenarios and Modelling of Biodiversity and Ecosystem Services", contributing to the *Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (IPBES). Egmond aan Zee, the Netherlands, 27-31 October 2014; Ushuaia, Argentina, 9-13 March 2015; Beijing, China, 27-31 July 2015.
- Workshop: *Refining IUCN Red List Guidelines for Exploited Species*. Vancouver, B.C., Canada. October 15-17, 2014.
- Public lecture: *Predicting and Preventing Extinctions in an Era of Climate Change*, at the Symposium on "Extinction: Biology, Culture, and our Futures." Franke Program in Science and the Humanities, Yale University. October 11, 2014.
- Symposium: Advancing Ecological Theory for Conservation Biology. Ecological Society of America (ESA) Annual Meeting, Sacramento, California, August 13, 2014.
- Seminar: *Species Extinction Risks under Climate Change: Interacting effects of demographic and spatial factors*. Department of Ecology and Evolutionary Biology, University of Connecticut - Storrs. November 15, 2012.
- Workshop: *Red Flags and Species Endangerment*. National Center for Ecological Analysis and Synthesis, Santa Barbara, CA. 27 September-1 October 2010; 21-25 March 2011; 15-20 January 2012.
- Webinar: *National Red Lists and Conservation of Species*. Launch of "Red Book of Butterflies in Turkey". Nature Conservation Center, Ankara, Turkey. 7 February 2011.
- Webinar: *Predicting Species Viability in Changing Landscapes and Under Changing Climate*. US Fish and Wildlife Service and Indiana University course on "Conservation for the 21st Century". 12 October 2010.
- IUCN Extinction Criteria Workshop*. 10-14 July 2010. Woods Hole Oceanographic Institution, MA.
- National Biology Congress*. 21-25 June 2010. Pamukkale University, Denizli, Turkey
- Technical Workshop for Red-Listing Butterflies of Turkey*. 10-12 August 2009. Middle East Technical University, Ankara, Turkey.
- Seminar: *IUCN Red List Assessments under Uncertainty and Climate Change*. 2 June 2009. University of Melbourne, Melbourne, Victoria, Australia.
- Workshop: *Combining Bioclimatic and Demographic Models to Project Climate Change Impacts on Australian Plants*. 25-29 May 2009. University of Adelaide, Australia.
- Public lecture: *Endangered Species and Animal Conservation*. April 2009. Sachem Public Library, Holbrook, NY.
- Seminar: *Predicting Species Extinction Risks under Climate Change*. 30 March 2009. Consortium for Inter-Disciplinary Environmental Research (CIDER) Seminar Series, Stony Brook University, NY.
- Seminar: E3B/CERC Seminar Series, Department of Ecology, Evolution and Environmental Biology, Columbia University, New York, NY, 18 November 2008
- Seminar: *Species persistence in changing landscapes and under changing climate*. 7 November 2008. Northern Illinois University, DeKalb, IL.

Public lecture: *Quantitative methods for dealing with risk and uncertainty in ecological applications*. 6 November 2008. Northern Illinois University, DeKalb, IL.

Public lecture: *The Endangered Species Crisis*. The Living World Lecture Series. 17 October 2008. Stony Brook University, NY.

Climate change and species extinctions: New approaches to support decision-makers. Session at the IUCN World Conservation Congress. October 2008. Barcelona, Spain.

Workshop on Population-Level Ecological Risk Assessment, organized by US EPA's Risk Assessment Forum. June 2008. Crystal City, VA.

Public lecture: *Sustaining Biodiversity: Reconciling the Science and Law of Conserving Threatened Species*. April 15, 2008. Stony Brook University, Wang Center

Seminar: *Approaches for Dealing with Variability and Uncertainty in Threatened Species Assessments*. National Museum of Natural Sciences, CSIC, Madrid, Spain, April 2008

(Organizer) Working group: *Modelling species extinction risk under climate change*. National Museum of Natural Sciences, CSIC, Madrid, Spain (7-11 April 2008).

Symposium: *Conservation Design: A Way to Manage For All Species?* 68th Midwest Fish & Wildlife Conference. Madison, Wisconsin, December 2007.

Workshop: *Species Vulnerability Traits*. NERC Centre for Population Biology in Silwood Park (Berkshire, UK), October 2007.

(Organizer) Workshop: *Using the IUCN Red List Criteria to Project Climate Change Impacts on Biodiversity*. NERC Centre for Population Biology in Silwood Park (Berkshire, UK), August 2007.

(Facilitator) Turkish National Red List workshop. Ankara, Turkey, December 2006.

VI. Ulusal Ekoloji ve Çevre Kongresi (National Congress of Ecology), Diyarbakır, Turkey, September 2006.

Workshop: *Biodiversity in a Changing Climate: Assessing Uncertainties*. Aspen Global Change Institute, CO, 2005. Carlton University, Ottawa, Canada, April 2005.

IUCN Sampled Red List Index Workshop, London, UK, March 2005.

Species At Risk 2004: Pathways to Recovery. Victoria, British Columbia, Canada, March 2004.

Marine Sciences Research Center, State University of New York at Stony Brook. February 2004.

First Okazaki Biology Conference – "The Biology of Extinction", Okazaki, Japan. January 2004.

Workshop on Long-term Pesticide Risks to Birds and Mammals. Central Science Laboratory, York, UK. Jan. 2004.

Landscape Ecology Symposium, Natural Areas Association Conference, Madison, WI, September 2003.

Seminar on Critical Habitat and Population Viability Analysis for Species at Risk in British Columbia. BC Ministry of Water, Land and Air Protection, Terrestrial Ecosystem Science Section. Victoria, BC, Canada, May 2003.

International Association of Landscape Ecology - US Regional Association. The 18th Annual Symposium, Banff, Alberta, Canada, April 2003.

Red Lists, Priority Species and National Conservation Action Plans. A workshop organized by the Turkish Bird Research Society, Ankara, March 2003.

Critical habitat for recovery: deciding how much is enough. A workshop organized by the Federal Interdepartmental Critical Habitat Working Group. 9-11 December 2002. Ottawa, Ontario.

Quantitative methods for determining critical habitat for aquatic species-at-risk. A workshop organized by DFO Canada. 3-6 December, 2002. Montréal, Quebec.

Incorporating temporal and spatial variability in population models. Middle East Technical University, Ankara, Turkey, October 2002

Conference on Fire and Wildlife Habitat, Tropical Savannas Cooperative Research Centre and Key Centre for Tropical Wildlife Management, Darwin, Australia, July 2002

Annual Conference on Toxicology and Risk Assessment: *Toxicology and Risk Assessment Approaches in the 21st Century*. Cincinnati, OH, April 2000

Symposium: Microcomputer Applications in Population Modeling and Viability Analysis (organizer). The 4th Microcomputer Applications in Fish and Wildlife Conference, Stateline, Nevada, October 1999

IUCN Red List criteria review and regional workshops, Tokyo, Japan, January 1999; Sydney, Australia, May 1999; Cambridge, UK, July 1999; Colombo, Sri Lanka, September 1999

Recent advances in conservation biology. Middle East Technical University, Ankara, Turkey, May 1999

International Workshop on Risk Assessment of Threatened Species, Tokyo, Japan, January 1999

Symposium on Setting conservation priorities: decisions with uncertain data. Annual Meeting of the Society for Conservation Biology, Macquarie University, Sydney, Australia, July 1998

Workshop on *Landscape Management of Pacific Northwest Forests: Exploring Practical Tools for Managers*. Washington Dept. of Fish and Wildlife, and the U.S. EPA. Olympia, Washington, February 1998

Workshop on *The Use of Population Viability Analyses in Conservation Planning*. Swedish Environmental Protection Agency. Stockholm, Sweden, December 1997

Ecosystem modeling workshop, Waterways Experiment Station. WinRock, Arkansas, July 1997

Annual GIS conference of the Mid-Atlantic URISA. Rutgers University, NJ, January 1996

Workshop on *Ecological Risk Assessment*, Dept. of Fisheries and Oceans, Winnipeg, Canada, March 1995

Yale University, Department of Biology, February 1995

Symposium on Ecological Risk Assessment. International Society for Ecological Modelling, Knoxville, TN, Aug. 1994

Workshop on *Ecological models for conservation*, Grandes Ecoles du Vivant, Paris, June 1994

Population Viability Workshop, Fundy National Park, Canada, October 1993

University of Paris XI, France, June 1993

Department of Zoology, Fribourg University, Switzerland, May 1993

Institute of Animal Ecology, University of Lausanne, Switzerland, April 1993

Institute of Ecosystem Studies, The New York Botanical Garden, March 1993

Conference on *Managing Natural Landscapes for the Conservation of Biodiversity*, University of California at San Diego, January 1993

International Workshop on Avian Interactions with Utility Structures, Miami, September 1992

Symposium on *Ecological Risk Analysis at the Population Level*, AIBS Annual Meeting, Honolulu, HI, Aug 1992

Workshop on *Curriculum Development in Quantitative Sciences for Life Science Students*. University of Tennessee, Knoxville, February 1992

Symposium on *Application of Ecological Models to Natural Area Preserve Design and Management*, ESA Annual Meeting, San Antonio, Texas, August 1991

Seminar on *Bridging the Gap between Theoretical and Empirical Ecology*. Piney Woods Conservation Center, Texas, November 1990

Annual Meeting on Computerized Fish and Wildlife Information Systems, Dallas, Texas, August 1990

Department of Wildlife, Humboldt State University, Arcata, California, March 1990

10th Anniversary Meeting of the Ornithological Society of the Middle East. London, U.K., November 1988

TEACHING ACTIVITY

Stony Brook University (SBU):

Director of the PhD Program (2012 to 2015)

Developed and taught *Landscape Ecology Laboratory*, an undergraduate computer lab and lecture course, focusing on spatial concepts, methods, and tools for addressing ecological and environmental questions.

Taught 33%-50% of *Fundamentals of Ecology*, a course for first-year Ph.D. students.

Taught 50% of *General Ecology*, an undergraduate ecology course for non-majors.

Graduate seminar courses on "Impacts of Climate Change on Biodiversity", "Population Viability Analysis", "Measuring Species Recovery and the Impact of Conservation Measures", and "Is Ecology (still) Useful for Conservation?"

Prior to working at SBU:

Organizer and Lecturer, Workshops on *Ecological Modeling and Population Viability Analysis*:

- U.S. Environmental Protection Agency, Washington, DC (October 2006)
- European Congress of Conservation Biology, Eger, Hungary (August 2006)
- Environment Canada, Ottawa, Canada (April 2006)
- Parks Canada, Gatineau, Quebec, Canada (April 2005)
- U.S. Environmental Protection Agency, Region 5, Chicago, Illinois (October 2004)
- Instituto de Pesquisas Ecológicas (IPÊ), Morro do Diabo State Park, SP, Brazil (July 2003)
- British Columbia Ministry of Water, Land and Air Protection, Victoria, B.C. (May 2003)
- Ohio Chapter of The Wildlife Society, Ohio State University, Columbus, OH (October 2000)
- Waterways Experiment Station, Army Corps of Engineers, Vicksburg, MS (September 2000)
- Biology Department, Middle East Technical University, Ankara, Turkey (May 1999)
- Annual meetings of the Society for Conservation Biology in Missoula, Montana (June 2000); College Park, Maryland (June 1999); Sydney, Australia (July 1998)
- Annual meetings of the Ecological Society of America in Knoxville, Tennessee (August 1994); Madison, Wisconsin (July 1993); Honolulu, Hawaii (August 1992)

Guest Lecturer, Scientific Principles and Techniques for Endangered Species Conservation. Fish and Wildlife Service, National Conservation Training Center, Shepherdstown, WV (February 2004).

Guest Lecturer, Biology Department, Middle East Technical University: Contributed to a course in "Population viability analysis" (May 1999).

Visiting Lecturer, Ecology and Evolution, State University of New York, Stony Brook: Seminar course on Risk Assessment for Conservation Biology (Spring 1993).

Lecturer, Workshop on Mathematical Ecology, International Center for Science and High Technology, Trieste, Italy (November 1992).

Visiting Lecturer, Yale University, School of Forestry and Environmental Studies: Invited to give a lecture on metapopulation modeling in "Advanced Seminar in Conservation Biology" (November 1990).