

SIMON A. LEVIN

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LIST OF PUBLICATIONS

2024

786. E Junquera, V., Schlüter, M., Rocha, J., Wundering, N. **Levin, S.A.**, Rubenstein, D.I., Castella, J.C., and P. Meyfroidt. 2024. Crop booms as regime shifts. *Royal Society Open Science* 11: 231571. <https://doi.org/10.1098/rsos.231571>.
785. E Gibbs, T., Gellner, G., **Levin, S.A.**, McCann, K.S., Hastings, A., and J. M. Levine. 2024. When can higher-order interactions resolve the species coexistence? *Ecology Letters* 27: e14458. <https://doi.org/10.1111/ele.14458>.
784. E Perri, S., **Levin, S.A.**, Cerasoli, S., and A. Porporato. 2024. Socio-political dynamics in clean energy transition. *Environmental Research Letters* 19(7): 074017. <https://iopscience.iop.org/article/10.1088/1748-9326/ad5031>
784. E Hagstrom, G.I., Stock, C.A., Luo, J.Y., and **S.A. Levin**. 2024. Impact of dynamic phytoplankton stoichiometry on global scale patterns of nutrient limitation, nitrogen fixation, and carbon export. *Global Biogeochemical Cycles*. <http://dx.doi.org/10.1029/2023GB007991>.
783. E Reeves, M., Singer, D., **Levin, S.**, Levin, J., and A. Job. (2024, April 22). Noise: An unlikely ally for business leaders. *BCG Henderson Institute*. Available from: <https://bcghendersoninstitute.com/noise-an-unlikely-ally-for-business-leaders/>.
782. E Freedman, A.S., Sheen, J.K., Tsai, S., Yao, J., Lifshitz, E., Adinaro, D., **Levin, S.A.**, Grenfell, B.T., and C.J.E. Metcalf. 2024. Inferring COVID-19 testing and vaccination behavior from New Jersey testing data. *PNAS* 121(17): e231435121. <https://doi.org/10.1073/pnas.2314357121>.
781. Mitchell, J. Jason (Host). (2024, January 15). **Simon Levin**, Princeton University, Economic factors underlying biodiversity loss [Audio podcast episode]. In *A Sustainable Future Podcast Series*. Responsible Investment Research, Man Group plc, London, UK. <https://www.man.com/maninstitute/a-sustainable-future-podcast>.
780. E Choquette-Levy, N., Wildemersch, M., Santos, F.P., **Levin, S.A.**, Oppenheimer, M., and E. Weber. 2024. Prosocial preferences improve climate risk management in subsistence farming communities. *Nature Sustainability* 7: 282-293. <https://doi.org/10.1038/s41893-024-01272-3>.
779. E Deng, J., Taylor, W., **Levin, S.A.**, and S. Saavedra, S. 2024. On the limits to invasion prediction using coexistence outcomes. *Journal of Theoretical Biology* 577: 1116674. <https://doi.org/10.1016/j.jtbi.2023.111674>.
778. E Oh, W.S., Muneeppeerakul, R., Rubenstein, D., and **S. Levin**. 2024. Emergent network patterns of internal displacement in Somalia driven by natural disasters and conflicts. *Global Environmental Change* 84: 102793. <https://doi.org/10.1016/j.gloenvcha.2023.102793>.
777. E Patterson, D., **Levin, S.**, Staver, A.C., and J. Touboul. 2024. Pattern formation in mesic savannas. *Bulletin of Mathematical Biology* 86(3). <https://doi.org/10.1007/s11538-023-01231-7>.

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776. E Nguyen, M.M., Freedman, A.S., Ozbay, S.A., and **S.A. Levin**. 2023. Fundamental bound on epidemic overshoot in the SIR model. *Journal of the Royal Society Interface* 20(209): 20230322. <https://doi.org/10.1098/rsif.2023.0322>.

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774. E Espinoza, B., Adiga, A., Venkatramanan, S., Warren, A.S., Chen, J., Lewis, B.L., Vullikanti, A., Swarup, S., Moon, S., Barrett, C.L., Athreya, S., Sundaresan, R., Chandru, V., Laxminarayan, R., Schaffer, B., Poor, H.V., **Levin, S.A.**, and M.V. Marathe. 2023. Coupled models of genomic surveillance and evolving pandemics with applications for timely public health responses. *PNAS* 120(48): e2305227120. <https://doi.org/10.1073/pnas.2305227120>.
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768. EI Reeves, M., **Levin, S.**, Van der Veecken, R., Nimer, J., and A. Job. (2023, August 24). Biodiversity: The next arena in sustainable business. *BCG Henderson Institute*. Available from: <https://bcghendersoninstitute.com/biodiversity-the-next-arena-in-sustainable-business/>.
767. E Saad-Roy, C.M., **Levin, S.A.**, Grenfell, B.T., and M. Boots. 2023. Epidemiological impacts of post infection mortality. *Proceedings of the Royal Society B* 290: 2020343. <https://doi.org/10.1098/rspb.2023.0343>.
766. EI Dasgupta, P., **Levin, S.A.**, and G. Kell. (2023, May 25). “Economic Factors Underlying Biodiversity Loss.” Interview by Martin Reeves. *BCG Henderson Institute*. Podcast. Available from: <https://bcghendersoninstitute.com/economic-factors-underlying-biodiversity-loss-with-partha-dasgupta-simon-levin-and-georg-kell/>
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762. E Schrom, E., Kinzig, A., Forrest, S., Graham, A.L., **Levin, S.A.**, Bergstrom, C.T., Castillo-Chavez, C., Collins, J.P., de Boer, R.J., Doupe, A., Ensafi, R., Feldman, S., Grenfell, B.T., Halderman, J.A., Huijben, S., Maley, C., Moses, M., Perelson, A.S., Perrings, C., Plotkin, J., and Tiwari, M. 2023. Challenges in cybersecurity: Lessons from biological defense systems. *Mathematical Biosciences* 362: 109024. <https://doi.org/10.1016/j.mbs.2023.109024>.

761. E Jaeger, W.K., Irwin, E.G., Fenichel, E.P., **Levin, S.**, and A. Hertziger, A. 2023. Meeting the challenges to economists of pursuing interdisciplinary research on human-natural systems. *Review of Environmental Economics and Policy* 17(1). <https://doi.org/10.1086/723835>.
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755. **Levin, S.A.**, and N. Silitch. (2023, January 3). “Can We Tackle Vaccine Hesitancy and Global Warming with a Similar Playbook: Researchers Think So.” In *Princeton Pulse* [podcast]. Center for Health and Wellbeing, Princeton University. [CHW Link](#).
754. E Anderies, J.M., and **S.A. Levin**. 2023. “Conservation of fragility and the collapse of social orders.” In *How Worlds Collapse: What History, Systems, and Complexity Can Teach Us about Our Modern World and Fragile Future*, eds. M. Centeno, P. Callahan, P. Larcey, and T. Patterson, 262-295. New York: Routledge. DOI (for book): <https://doi.org/10.4324/9781003331384>
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749. E Puy, A., Beneventano, P., **Levin, S.A.**, Lo Piano, S., Portaluri, T., and A. Saltelli. 2022. Models with higher effective dimensions tend to produce more uncertain estimates. *Science Advances* 8(42). Doi: <https://doi.org/10.1126/sciadv.abn9450>
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747. EI Job, A., Verb, L., Reeves, M. and **S.A. Levin**. 2022. Aging gracefully: Avoiding corporate decline by embracing lessons from human biology. BCG Henderson Institute. Available from: <https://bcghendersoninstitute.com/aging-gracefully-7d8ea11168c4>
746. E Yang, L., Constantino, S.M., Grenfell, B.T., Weber, E.U., **Levin, S.A.**, and V.V. Vasconcelos. 2022. Sociocultural determinants of global mask-wearing behavior. *PNAS* 119(41): e2213525119. Doi: <https://doi.org/10.1073/pnas.2213525119>
745. E Cooney, D.B., Rossine, F.W., Morris, D.H., and **S.A. Levin**. 2022. A PDE model for protocell evolution and the origin of chromosomes via multilevel selection. *Bulletin of Mathematical Biology* 84: 109.
744. E Leonard, N., and S.A. Levin. 2022. Collective intelligence as a public good. *Collective Intelligence* 1(1). Doi: <https://doi.org/10.1177/26339137221083293>
743. E Fahimipour, A.K., Zeng, F., Homer, M., Traulsen, A., Levin, S.A., and T. Gross. 2022. Sharp thresholds limit the benefit of defector avoidance in cooperation on networks. *PNAS* 119(33): e2120120119. <https://doi.org/10.1073/pnas.2120120119>
742. E Fischer, I., **Levin, S.A.**, Rubenstein, D.I., Avrashi, S., Givon, L., and T. Oz. 2022. Interacting with others while reacting to the environment. *Behavioral and Brain Sciences*. <https://doi.org/10.1017/S0140525X21001291>
741. E Krueger, E.H., McPhearson, T., and **S.A. Levin**. 2022. Integrated assessment of urban water supply security and resilience: Towards a streamlined approach. *Environmental Research Letters* 17(7): 075006.
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714. **E** Sumaila, U.R. et al. (including **S.A. Levin**). 2021. World Trade Organization must ban fisheries subsidies. *Science* 374(6567): 544.
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711. **E** **Levin, S.A.**, Anderies, J.M., Adger, N., Barrett, S. Bennett, E.M., Cardenas, J.C., Carpenter, S.R., Crépin, A.-S., Ehrlich, P., Fischer, J., Folke, C., Kautsky, N., Kling, C., Nyborg, K., Polasky, S., Scheffer, M., Segerson, K., Shogren, J., van den Bergh, J., Walker, B., Weber, E.U., and J. Wilen. 2022 (2021). Governance in the face of extreme events: Lessons from evolutionary processes for structuring interventions, and the need to go beyond. *Ecosystems* 25(3): 697-711.
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Letters

- 1L. El Manski, C. et al. (including S.A. Levin). 2016. Statement to restore science-based policy in government by concerned members of the U.S. National Academy of Sciences. <https://scientistsforsciencebasedpolicy.org>.