

Stanford



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Bio

ACADEMIC APPOINTMENTS

- Senior Research Scientist, Stanford Woods Institute for the Environment
- Consulting Professor, Stanford Woods Institute for the Environment
- Managing Director, Woods Research Natural Capital Project

Publications

PUBLICATIONS

- **Gross ecosystem product (GEP): Quantifying nature for environmental and economic policy innovation.** *Ambio*
Zheng, H., Wu, T., Ouyang, Z., Polasky, S., Ruckelshaus, M., Wang, L., Xiao, Y., Gao, X., Li, C., Daily, G. C.
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- **Evidence-based target setting informs blue carbon strategies for nationally determined contributions.** *Nature ecology & evolution*
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- **Colombian biodiversity is governed by a rich and diverse policy mix.** *Nature ecology & evolution*
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2023
- **Priorities for synthesis research in ecology and environmental science** *ECOSPHERE*
Halpern, B. S., Boettiger, C., Dietze, M. C., Gephart, J. A., Gonzalez, P., Grimm, N. B., Groffman, P. M., Gurevitch, J., Hobbie, S. E., Komatsu, K. J., Kroeker, K. J., Lahr, H. J., Lodge, et al
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- **25 years of valuing ecosystems in decision-making** *NATURE*
Daily, G. C., Ruckelshaus, M.
2022
- **Integrated and innovative scenario approaches for sustainable development planning in The Bahamas** *ECOLOGY AND SOCIETY*
Wyatt, K. H., Arkema, K. K., Wells-Moultrie, S., Silver, J. M., Lashley, B., Thomas, A., Kuiper, J. J., Guerry, A. D., Ruckelshaus, M.
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- **Harnessing new data technologies for nature-based solutions in assessing and managing risk in coastal zones** *INTERNATIONAL JOURNAL OF DISASTER RISK REDUCTION*
Ruckelshaus, M., Reguero, B. G., Arkema, K., Compean, R., Weekes, K., Bailey, A., Silver, J.
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- **Renewable energy targets may undermine their sustainability** *NATURE CLIMATE CHANGE*

- Spillias, S., Kareiva, P., Ruckelshaus, M., McDonald-Madden, E.
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- **A transition to sustainable ocean governance.** *Nature communications*
Rudolph, T. B., Ruckelshaus, M., Swilling, M., Allison, E. H., Osterblom, H., Gelcich, S., Mbatha, P.
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 - **Using gross ecosystem product (GEP) to value nature in decision making.** *Proceedings of the National Academy of Sciences of the United States of America*
Ouyang, Z., Song, C., Zheng, H., Polasky, S., Xiao, Y., Bateman, I. J., Liu, J., Ruckelshaus, M., Shi, F., Xiao, Y., Xu, W., Zou, Z., Daily, et al
2020
 - **Coastal vulnerability to climate change in China's Bohai Economic Rim.** *Environment international*
Zhang, Y. n., Wu, T. n., Arkema, K. K., Han, B. n., Lu, F. n., Ruckelshaus, M. n., Ouyang, Z. n.
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 - **The IPBES Global Assessment: Pathways to Action.** *Trends in ecology & evolution*
Ruckelshaus, M. H., Jackson, S. T., Mooney, H. A., Jacobs, K. L., Kassam, K. S., Arroyo, M. T., Báldi, A. n., Bartuska, A. M., Boyd, J. n., Joppa, L. N., Kovács-Hostyánszki, A. n., Parsons, J. P., Scholes, et al
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 - **Advancing Coastal Risk Reduction Science and Implementation by Accounting for Climate, Ecosystems, and People** *FRONTIERS IN MARINE SCIENCE*
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 - **INTRODUCTION TO THE SPECIAL ISSUE ON PISCO: PARTNERSHIP FOR INTERDISCIPLINARY STUDIES OF COASTAL OCEANS** *OCEANOGRAPHY*
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Arkema, K. K., Rogers, L. A., Toft, J., Meshner, A., Wyatt, K. H., Albury-Smith, S., Moultrie, S., Ruckelshaus, M. H., Samhour, J.
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 - **Synthetic vulnerability assessment to inform climate-change adaptation along an urbanized coast of Shenzhen, China.** *Journal of environmental management*
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 - **Leveraging vessel traffic data and a temporary fishing closure to inform marine management** *FRONTIERS IN ECOLOGY AND THE ENVIRONMENT*
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 - **Life cycle assessment needs predictive spatial modelling for biodiversity and ecosystem services** *NATURE COMMUNICATIONS*
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- **Transdisciplinary Research for Conservation and Sustainable Development Planning in the Caribbean** *CONSERVATION FOR THE ANTHROPOCENE OCEAN: INTERDISCIPLINARY SCIENCE IN SUPPORT OF NATURE AND PEOPLE*
Arkema, K. K., Ruckelshaus, M., Levin, P. S., Poe, M. R.
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- **Entry Points for Considering Ecosystem Services within Infrastructure Planning: How to Integrate Conservation with Development in Order to Aid Them Both** *CONSERVATION LETTERS*
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- **Stable isotopes and oceanographic modeling reveal spatial and trophic connectivity among terrestrial, estuarine, and marine environments** *MARINE ECOLOGY PROGRESS SERIES*
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- **Embedding ecosystem services in coastal planning leads to better outcomes for people and nature** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
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2015; 112 (24): 7390-7395
- **Improving global environmental management with standard corporate reporting** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
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- **Reply to Phelps et al: Liability rules provide incentives to protect natural capital.** *Proceedings of the National Academy of Sciences of the United States of America*
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- **Assessing habitat risk from human activities to inform coastal and marine spatial planning: a demonstration in Belize** *ENVIRONMENTAL RESEARCH LETTERS*
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- **Key lessons for incorporating natural infrastructure into regional climate adaptation planning** *OCEAN & COASTAL MANAGEMENT*
Langridge, S. M., Hartge, E. H., Clark, R., Arkema, K., Verutes, G. M., Prahler, E. E., Stoner-Duncan, S., Revell, D. L., Caldwell, M. R., Guerry, A. D., Ruckelshaus, M., Abeles, A., Coburn, et al
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- **From mountains to sound: modelling the sensitivity of Dungeness crab and Pacific oyster to landsea interactions in Hood Canal, WA** *ICES JOURNAL OF MARINE SCIENCE*
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- **Characterizing coastal foodwebs with qualitative links to bridge the gap between the theory and the practice of ecosystem-based management** *ICES JOURNAL OF MARINE SCIENCE*
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- **The Future of Marine Conservation and Management** *MARINE COMMUNITY ECOLOGY AND CONSERVATION*
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- **Climate change's impact on key ecosystem services and the human well-being they support in the US** *FRONTIERS IN ECOLOGY AND THE ENVIRONMENT*
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- **Benefits, costs, and livelihood implications of a regional payment for ecosystem service program** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
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- **Securing ocean benefits for society in the face of climate change** *MARINE POLICY*
Ruckelshaus, M., Doney, S. C., Galindo, H. M., Barry, J. P., Chan, F., Duffy, J. E., English, C. A., Gaines, S. D., Grebmeier, J. M., Hollowed, A. B., Knowlton, N., Polovina, J., Rabalais, et al
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- **Achieving the triple bottom line in the face of inherent trade-offs among social equity, economic return, and conservation** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
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- **Guiding ecological principles for marine spatial planning** *MARINE POLICY*
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- **Science in support of ecosystem-based management for the US West Coast and beyond** *BIOLOGICAL CONSERVATION*
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