Stanford



Veronica Frans

Postdoctoral Scholar, Oceans

Curriculum Vitae available Online

Bio

BIO

Veronica is a quantitative ecologist and science communicator focused on understanding biodiversity-human relationships within the contexts of conservation, sustainability, and ecological theory. She advances methods in ecological and synthesis research by creating innovative, open-source databases, modeling tools, and frameworks that have been widely adopted for conservation and industrial applications. Her award-winning research has been published in leading journals such as Methods in Ecology & Evolution and Nature Ecology & Evolution, and has consistently gained global media attention, being featured in The New York Times, The Washington Post, CNN, and Smithsonian Magazine.

Veronica earned a dual Ph.D. in Fisheries & Wildlife and Ecology, Evolution, & Behavior from Michigan State University in 2024. She also holds a dual M.Sc. in International Nature Conservation from Göttingen University (Germany) and Lincoln University (New Zealand). She has studied and worked in many places around the world—from as far north as Alaska's Bering Sea, to as far south as the Falkland Islands. Speaking six languages, her international experiences and relationships with diverse communities inform her research on coupled human-natural systems at local to global scales.

Veronica is a Stanford Science Fellow and National Science Foundation Postdoctoral Research Fellow in Biology at Hopkins Marine Station (Doerr School of Sustainability). Her faculty host is Fiorenza Micheli, the David and Lucile Packard Professor of Marine Science, Chair of the Oceans Department, and Co-Director of the Stanford Center for Ocean Solutions. For her postdoctoral research, Veronica is developing a novel framework for predicting human-wildlife relationships under global change.

HONORS AND AWARDS

- NSF Postdoctoral Research Fellowship in Biology (PRFB), National Science Foundation (2024-2027)
- Stanford Science Fellowship, Stanford University (2024-2027)
- Best Speaker Award, International Workshop on Geography and Sustainability (2025)
- ASA Early Career Scientist Award, American Scientific Affiliation (2025)
- Outstanding Paper in Landscape Ecology Award, International Association for Landscape Ecology - North America (2025)
- Jianguo (Jack) Liu Graduate Award in Sustainability, Michigan State University (2024)
- Outstanding Publication in Environmental Science and Policy, Michigan State University (2022)
- Outstanding Publication on New Zealand Ecology, New Zealand Ecological Society (2022)
- Harvey Fellowship, The 28twelve Foundation (2022-2024)
- University Enrichment Fellowship, Michigan State University (2018-2024)
- NSF Graduate Research Fellowship (GRFP), National Science Foundation (2018-2023)

- Modelling Complex Ecological Dynamics (MCED) Award, GfÖ, The Ecological Society of Germany, Austria and Switzerland (2017)
- NASA-MSU Professional Enhancement Award, US International Association of Landscape Ecology (2016)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Michigan State University , Fisheries & Wildlife + Ecology, Evolution, & Behavior (2024)
- Master of Science, University of Göttingen (Germany) , International Nature Conservation (2015)
- Master of Science, Lincoln University (New Zealand) , International Nature Conservation (2015)
- Bachelor of Science, Messiah University , Environmental Science (2007)
- Bachelor of Arts, Messiah University , French (2007)

STANFORD ADVISORS

- Fiorenza Micheli, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Gaps and opportunities in modelling human influence on species distributions in the Anthropocene.** *Nature ecology & evolution*
  Frans, V. F., Liu, J.
  2024; 8 (7): 1365-1377
- **Integrated SDM database: Enhancing the relevance and utility of species distribution models in conservation management** *METHODS IN ECOLOGY AND EVOLUTION*
  Frans, V. F., Auge, A. A., Fyfe, J., Zhang, Y., McNally, N., Edelhoff, H., Balkenhol, N., Engler, J. O.
  2022; 13 (1): 243-261
- **Quantifying apart what belongs together: A multi-state species distribution modelling framework for species using distinct habitats** *METHODS IN ECOLOGY AND EVOLUTION*
  Frans, V. F., Auge, A. A., Edelhoff, H., Erasmi, S., Balkenhol, N., Engler, J. O.
  2018; 9 (1): 98-108
- **Use of local ecological knowledge to investigate endangered baleen whale recovery in the Falkland Islands** *BIOLOGICAL CONSERVATION*
  Frans, V. F., Auge, A. A.
  2016; 202: 127-137
- **A framework for effective long-term conservation in a changing climate** *ECOLOGICAL INDICATORS*
  Tang, Y., Winkler, J. A., Vina, A., Wang, F., Frans, V. F., Zhang, J., Zhao, Z., Connor, T., Yang, H., Zhang, Y., Zhang, X., Li, X., Xu, et al
  2026; 189
- **Reciprocal inhibition and competitive hierarchy cause negative biodiversity-ecosystem function relationships.** *Ecology letters*
  D'Andrea, R., Khattar, G., Koffel, T., Frans, V. F., Bittleston, L. S., Cuellar-Gempeler, C.
  2024; 27 (1): e14356
- **It takes a village to raise a science communicator** *Journal of Higher Education Outreach and Engagement*
  Frans, V. F.
  2024; 28 (3): 140-156
- **seesus: a social, environmental, and economic sustainability classifier for Python** *Journal of Open Source Software*
  Cai, M., Li, Y., Colbry, D., Frans, V. F., Zhang, Y.
  2024; 9 (96): 6244
- **SDGdetector: an R-based text mining tool for quantifying efforts toward Sustainable Development Goals** *Journal of Open Source Software*
  Li, Y., Frans, V. F., Song, Y., Cai, M., Zhang, Y., Liu, J.
  2023; 8 (84): 5124
- **The metacoupled Arctic: Human-nature interactions across local to global scales as drivers of sustainability.** *Ambio*

Kapsar, K., Frans, V. F., Brigham, L. W., Liu, J.
2022; 51 (10): 2061-2078

- **A network perspective for mapping freshwater service flows at the watershed scale** *ECOSYSTEM SERVICES*
  Wang, Z., Zhang, L., Li, X., Li, Y., Frans, V. F., Yan, J.
  2020; 45
- **Assessing the water and carbon footprint of hydropower stations at a national scale.** *The Science of the total environment*
  Wang, J., Chen, X., Liu, Z., Frans, V. F., Xu, Z., Qiu, X., Xu, F., Li, Y.
  2019; 676: 595-612
- **Spatial distribution of cetacean strandings in the Falkland Islands to define monitoring opportunities** *Journal of Cetacean Research and Management*
  Augé, A. A., Otley, H., Rendell, N., Frans, V. F.
  2018; 19: 1-7