Veronica F. Frans

Stanford Science Fellow
National Science Foundation Postdoctoral Research Fellow
Hopkins Marine Station • Stanford Doerr School of Sustainability • Stanford University
https://profiles.stanford.edu/veronica-frans VeroFrans@gmail.com

I am an ecologist and community-engaged scholar,
working to develop methods and theory for Coupled Human and Natural Systems.

KEYWORDS
Applied & Theoretical Ecology • Coupled Human & Natural Systems • Geography • Conservation • Sustainability • Data Science • Community Engagement • Science Communication • Environmental Ethics

QUALIFICATIONS

- **Quantitative ecologist**, trained in spatial and statistical modeling (species distributions, system dynamics, meta-analysis), opinion-based methods, data wrangling, text mining, and text analysis.
- **Synthesis scientist**, analyzing historical and contemporary literature and methodologies to identify gaps and direct new inquiries in ecological methods, theory, and conservation.
- **Global field researcher**, working in extreme conditions (marine, harsh climates; remote, isolated communities) with diverse flora and fauna, and leading international collaborative teams.
- **Community-engaged scholar**, collaborating with stakeholders and decision-makers, conducting interviews to elicit local and expert ecological knowledge, and engaging with the public.
- **Science communicator**, speaking and writing publicly on biodiversity, conservation, policy, and faith.

EDUCATION

DEGREES

- **Dual Ph.D.: Fisheries & Wildlife • Ecology, Evolution, & Behavior**
  Michigan State University (MSU), Aug. 2024, East Lansing, MI
- **Dual Master of Science: International Nature Conservation**
  Georg-August-Universität Göttingen (University of Göttingen), Jan. 2015, Göttingen, Germany
  Lincoln University, Jan. 2015, Christchurch, New Zealand
- **Bachelor of Science: Environmental Science (Spanish minor) // Bachelor of Arts: French**
  Messiah University, May 2007, Mechanicsburg, PA

CERTIFICATES

- **Environmental & Social System Modeling**, MSU College of Social Sciences, 2020
- **Spatial Ecology**, MSU College of Natural Resources, Dec. 2019
- **Environmental Analyst**, Au Sable Institute of Environmental Studies, Aug. 2008

COMPUTER SKILLS

Geographic Information Systems (ArcGIS Pro, Python, R, QGIS); **Data Management** (R, Excel, ATLAS); **Statistics** (R, Python, C++, STATISTICA); **Ecological/Social System Modeling** (R, Maxent, STELLA, Python, Mathematica, JAGS, WinBUGS, NetLogo); **Agent-Based Modeling** (Python, NetLogo); **Data Visualization** (R, ArcGIS Pro, Python, Mathematica, BioRender, Adobe InDesign, Inkscape); **Cloud and Hyper Computing** (Microsoft Azure, MSU High Performance Computing Center)

STUDY ABROAD

NILS Japanese Language School, Fukuoka, Japan, Jan. - Mar. 2011; Feb. - Mar. 2012
Bishop Heber Au Sable Institute, Tiruchirappalli, India, Dec. - Jan. 2006; GPA 4.0/4.0
Universidad San Francisco de Quito, Quito, Ecuador, Aug. - Dec. 2005; GPA 3.80/4.0
Université Marc Bloch, Strasbourg, France, Jan. - May 2005; GPA 3.94/4.0

LANGUAGES

English (Native) • **Spanish** (Proficient, DELE-B2) • **French** (Proficient, DELF-B2) • **Brazilian Portuguese** (Advanced) • **Japanese** (Advanced, JLPT-N4) • **German** (Intermediate)

WORK EXPERIENCE

STANFORD SCIENCE FELLOW &
NSF POSTDOCTORAL RESEARCH FELLOW
STANFORD UNIVERSITY, HOPKINS MARINE STATION
Pacific Grove, California **Sep. 2024 - present**

- Gained globally-competitive postdoctoral training to develop new directions in foundational scientific research while bridging disciplines in the physical, mathematical, and life sciences.
- Led a working group of 12 ecologists, physicists, and mathematicians to synthesize the impacts and propose the future of a **100-year-old equation in ecology** (Lotka-Volterra).
- Hosted Lotka-Volterra Centennial at Ecological Society of America 2026.
- Used AI to synthesize and analyze >80,000 IUCN Red List reports to develop a global predictive model of human-wildlife interactions (in progress).
- Mentored 15 students, postdocs, research assistants, and interns in project development, grant writing (GRFP, PRFB), and career trajectories.

ASSISTANT PROFESSOR
AU SABLE INSTITUTE OF ENVIRONMENTAL STUDIES
Mancelona, Michigan **Jun. - Jul. 2021; Jun - Jul. 2022**

- Taught Geographic Information Systems (GIS) for *Land & Water Resources*.
- Introduced students to GIS, global positioning systems, spatial data analysis, and visualization, using custom-designed lab assignments in ESRI ArcGIS Pro.

CONSERVATION CONSULTANT
NEW ZEALAND DEPARTMENT OF CONSERVATION (DOC)
Wellington, New Zealand (remote) **Feb. 2019 - Jun. 2019**

- Initiated and completed a project creating an integrated species distribution modeling database (iSDMdb) for decision-making and management of the New Zealand sea lion (*Phocarctos hookeri*).
- Interactive map: https://www.doc.govt.nz/predicted-nz-sea-lions-sites.
- Map was printed for an exhibit for an **educational campaign** hosted by DOC.

NOAA FISHERIES OBSERVER (NATIONAL MARINE FISHERIES SERVICE)
SALTWATER, INC.
Anchorage, AK **Apr. 2009 - Nov. 2013; Apr. - Jun. 2015; Aug. 2016 - Dec. 2017**

- Certified for sampling in the U.S. North Pacific Groundfish Fisheries Program.
- Sampled for species composition on commercial longline, trawl, pot, and factory vessels throughout the Gulf of Alaska and Bering Sea **(> 800 sea days)**.
- Constructed sound sampling designs to sort, weigh and collect specimens for species of interest and estimate total catch, sending data via ATLAS for analysis.

MARINE SPATIAL PLANNING (MSP) RESEARCH ASSISTANT
SOUTH ATLANTIC ENVIRONMENTAL RESEARCH INSTITUTE
Stanley, Falkland Islands **Aug. 2015 - Jun. 2016**

- Collated, mapped, and compared historical and contemporary occurrence data on baleen whales in the Falkland Islands' waters.
- Interviewed locals and marine users for anecdotal evidence on whale presence.
- Modeled baleen whale distribution for MSP and government decision-making.
- Mapped locations became **world's first Key Biodiversity Area for sei whales**.
- Assisted in GPS-tagging and tracking of black-browed albatross, whale stranding data collection (necropsies), and writing and editing scientific manuscripts.

RESEARCH INTERN

HONG KONG DOLPHIN CONSERVATION SOCIETY

Hong Kong, SAR China **Nov. 2012 - Feb. 2013**

- Conducted line-transect vessel surveys for distribution/abundance of the Indo-Pacific Humpback Dolphin (*Sousa chinensis*) and Finless Porpoise (*Neophocaena phocaenoides*), as well as acoustic surveys and land-based theodolite tracking.
- Recorded effort data and took photos for individual photo-identification.
- Submitted a weekly report of activities and maintained the internship blog website.

PROGRAM ASSOCIATE

SUN MOUNTAIN INTERNATIONAL (SMTN)

Quito, Ecuador **Aug. 2005 - Jan. 2006; Oct. 2006; Jun. 2007**

- Prepared proposals, environmental impact assessment workshops, and reports for non-profit organizations (e.g., CARE, USAID/LAC, Save the Children, World Vision).

MANAGER'S ASSISTANT

VERTE VALLÉE: LA GRIVELIÈRE

Vieux-Habitants, Guadeloupe **Jan. 2007**

- Assisted in ecotourism management and restaurant service on a coffee plantation.

RESEARCH ASSISTANT

MESSIAH UNIVERSITY BIOLOGY DEPARTMENT

Mechanicsburg, PA **Jan. - May; Sep. - Dec. 2004**

- Studied the effects of *Bt* corn pollen on lacewing (*Chrysoperla plorabunda*) reproduction rates.
- Studied Panama golden frog (*Atelopus zeteki*) morphology and photo identification.

RESEARCH ASSISTANT

UNIVERSITY OF BELIZE INSTITUTE OF MARINE STUDIES

Calabash Caye and Belize City, Belize **Jun. - Aug. 2004**

- Collected, separated, and dried leaf litter of 3 mangrove species on 4 islands in Ambergris Caye, Belize for CARICOMP calculations.

PROFESSIONAL WORKING GROUPS

3. **50 Voices – A Science Collective for Endangered Species** (esavoices.org)
   M Williamson, C Hickman, JJ Apodaca, S Goldenberg **Oct. 2024 - present**
2. **One Hundred Years of Lotka-Volterra and Beyond**
   VF Frans, G De Leo, F Micheli **Aug. 2025 - Oct. 2026**
   - Results: **2 papers; 1 seminar; 1 Special Session (Ecological Society of America 2026)**
1. **Merging Statistical Theory and Analyses at the Interface of Microbial and 'Macrobial' Ecology**
   M Leibold, P Peres-Neto, E Thébault. National Science Foundation **Aug. 2022 - Aug. 2024**
   - Results: **2 papers (*Eco. Letters*, *Oikos*); 1 Special Session (Ecological Society of America 2024)**

GRANTS

4. **National Science Foundation (NSF) Postdoctoral Research Fellowship in Biology (PRFB)** **Jun. 2024**
   National Science Foundation Directorate for Biological Sciences (NSF-BIO)
3. **New Zealand Department of Conservation *Te Papa Atawhai*** **Feb. 2019**
   Suitable habitats for sea lions: mapping and restoration

2. **National Science Foundation (NSF) Graduate Research Fellowship (GRFP)** **Apr. 2018**
   National Science Foundation Graduate Research Fellowship Program
1. **Falkland Islands Government Environmental Studies Budget** **Oct. 2015**
   Predicting baleen whale distributions for management using species distribution modelling

FELLOWSHIPS

11. **Stanford Science Fellowship** **Sep. 2024**
    School of Humanities and Sciences, Stanford University
10. **Dissertation Completion Fellowship** **Mar. 2024**
    The Graduate School, Michigan State University
9. **Academic Achievement Graduate Assistantship** **Aug. 2022**
   The Graduate School, Michigan State University
8. **Kellogg Biological Station Graduate Student Research Fellowship** **Apr. 2022**
   Kellogg Biological Station, Michigan State University
7. **Harvey Fellowship** **Mar. 2022**
   The 28twelve Foundation
6. **Ecology, Evolution, & Behavior Summer Fellowship** **Mar. 2022**
   Ecology, Evolution, & Behavior Program, Michigan State University
5. **Vera M. Wallach Graduate Fellowship** **Mar. 2022**
   Dept. Fisheries & Wildlife, Michigan State University
4. **Cloud Computing Fellowship** **Aug. 2021**
   Institute for Cyber-Enabled Research, Michigan State University
3. **Kellogg Biological Station Long-Term Ecological Research (LTER) Fellowship** **Apr. 2020**
   Kellogg Biological Station, Michigan State University
2. **Au Sable Graduate Research Fellowship** **Apr. 2020**
   Au Sable Institute of Environmental Studies
1. **Michigan State University (MSU) Enrichment Fellowship** **May 2018**
   The Graduate School, Michigan State University

PROFESSIONAL AWARDS

9. **Best Speaker Award** **Oct. 2025**
   International Workshop on Geography and Sustainability
8. **ASA Early Career Scientist Award** **Jul. 2025**
   American Scientific Affiliation
7. **Outstanding Paper in Landscape Ecology Award** **Apr. 2025**
   International Association for Landscape Ecology – North America
6. **Jianguo (Jack) Liu Graduate Award in Sustainability** **Jun. 2024**
   The Graduate School, Michigan State University
5. **Outstanding Publication on New Zealand Ecology** **Oct. 2023**
   New Zealand Ecological Society
4. **Wildlife Publication Award - Student Paper Shortlist** **May 2022**
   2022 Annual Publication Awards, The Wildlife Society
3. **Outstanding Publication in Environmental Science and Policy** **Apr. 2022**
   Environmental Science and Policy Program, Michigan State University
2. **Modelling Complex Ecological Dynamics (MCED) Award (1st Prize)** **Dec. 2017**
   GfÖ, The Ecological Society of Germany, Austria and Switzerland
1. **NASA-MSU Professional Enhancement Award** **Feb. 2016**
   International Association for Landscape Ecology

JOURNAL ARTICLES

LEAD AUTHOR

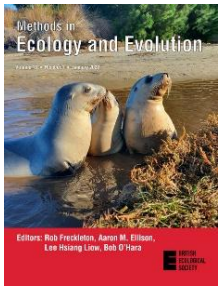
13. **Frans VF** (2024). It takes a village to raise a science communicator. Journal of Higher Education Outreach and Engagement 28(3):140-156.

12. **Frans VF**, Liu J (2024). Gaps and opportunities in modelling human influence on species distributions in the Anthropocene. **Nature Ecology and Evolution** 8:1368-1377. [79 citations; 9 news stories]
    - Award: **2025 Outstanding Paper in Landscape Ecology**



11. **Frans VF**, Augé AA, Fyfe J, Zhang Y, McNally N, Edelhoff H, Balkenhol N, Engler JO (2022). Integrated SDM database: enhancing the relevance and utility of species distribution models in conservation management. **Methods in Ecology and Evolution** 13:243-261. [59 citations; 76 news stories]





Journal cover feature

- Awards:
  2023 Outstanding Publication on New Zealand Ecology
  2022 Outstanding Publication in Environmental Science and Policy
  2022 The Wildlife Society Wildlife Publication Award (Student Paper Shortlist)
  2022 Wiley Top Downloaded Article in Methods in Ecology and Evolution
- **Also in:** Key Themes in Ecology – A Cross-Journal Virtual Special Issue in Support of the British Ecological Society 2022 Annual Meeting. **Ecology and Evolution**.

10. **Frans VF**, Augé AA, Edelhoff H, Erasmi S, Balkenhol N, Engler JO (2018). Quantifying apart what belongs together: a multi-state species distribution modelling framework for species using distinct habitats. **Methods in Ecology and Evolution** 9:98-108. [42 citations; 19 news stories]
    - Award: **2017 Modelling Complex Ecological Dynamics (MCED) Award (1st Prize)**



9. **Frans VF**, Augé AA (2016). Use of local ecological knowledge to investigate endangered baleen whale recovery in the Falkland Islands. **Biological Conservation** 202:217-137. [44 citations; 21 news stories]



COAUTHOR

8. Tang Y, Winkler JA, Viña A, Wang F, **Frans VF**, Zhang J, Zhao Z, Connor T, Yang H, Zhang Y, Zhang X, Li X, Xu W, Ouyang Z, Liu J (2026). A framework for effective long-term conservation in a changing climate. **Ecological Indicators** 189:115065.
7. Cai M, Li Y, Colbry D, **Frans VF**, Zhang Y (2024). Seesus: a social, environmental, and economic sustainability classifier for Python. **Journal of Open Source Software** 9(96), 6244. [1 citation]
6. D'Andrea R, Khattar G, Koffel T, **Frans VF**, Bittleston L, Cuellar-Gempeler C (2024). Reciprocal inhibition and competitive hierarchy cause negative biodiversity-ecosystem function relationships. **Ecology Letters** 27:e14356. [23 citations]
5. Li Y, **Frans VF**, Song Y, Cai M, Zhang Y, Liu J (2023). SDGdetector: an R-based text mining tool for quantifying efforts toward Sustainable Development Goals. **Journal of Open Source Software** 8(84):5124. [16 citations]
4. Kapsar K, **Frans VF**, Brigham L, Liu J (2022). The metacoupled Arctic: Human-nature interactions across local to global scales as drivers of sustainability. **Ambio** 51:2061-2078. [23 citations]
3. Wang Z, Li X, Li Y, **Frans VF**, Yan J, Zhang L (2020). A network perspective for mapping freshwater service flows at the watershed scale. **Ecosystem Services** 45:101129. [67 citations]
2. Wang J, Chen X, Liu Z, **Frans VF**, Xu Z, Qiu X, Xu F, Li Y (2019). Assessing the water and carbon footprint of hydropower stations at a national scale. **Science of the Total Environment** 676:595-612. [57 citations]
1. Augé AA, Otley H, Rendell N, **Frans VF** (2018). Spatial distribution of cetacean strandings in the Falkland Islands to define monitoring opportunities. **Journal of Cetacean Research and Management** 19:1-7. [11 citations]

GOVERNMENT REPORTS

3. **Frans VF** (2019). Suitable habitats for New Zealand sea lions: mapping and restoration. *Prepared for:* **New Zealand Department of Conservation**, Wellington, New Zealand.
2. **Frans VF**, Augé AA (2016). Marine Spatial Planning for the Falkland Islands: Predicting baleen whale distributions for management using species distribution modelling. *Prepared for:* **Falkland Islands Government Environmental Committee**, Stanley, Falkland Islands.

1. Augé AA, **Frans VF** (2016). Filling an important ecological gap for efficient planning: Investigating whale recovery and mapping whale distribution around the Falkland Islands using best available knowledge. *Prepared for:* **Falkland Islands Government Environmental Committee**, Stanley, Falkland Islands.

JOURNALISM

7. **Frans VF** (2025). Finding peace in the midst of Climate Anxiety. **BioLogos**. Sep. 23, 2025.
6. **Frans VF**, Liu J (2022). Protecting 30% of Earth's surface for nature means thinking about connections near and far. **The Conversation**. Dec. 2, 2022.
5. **Frans VF** (2022). When endangered species recover, humans may need to make room for them – and it's not always easy. **The Conversation**. Jan. 6, 2022. [3 citations]
4. **Frans VF** (2016). Recuperación de las ballenas en las Falklands, y una explosión de avistamientos. **Merco Press**. May 11, 2016.
3. **Frans VF** (2016). Whale recovery in Falklands and an explosion of sightings. **Merco Press**. May 4, 2016
2. **Frans VF** (2016). Whales returning indicates survey. **Penguin News** 27(42):7-7. Apr. 29, 2016.
1. **Frans VF** (2015). Mapping historical whale sightings. **Penguin News** 27(6):8-8. Oct. 23, 2015.

THESIS & DISSERTATION

2. **Frans VF** (2024). Advancing ecological niche theory for global sustainability: a coupled human and natural systems perspective. **Ph.D. Dissertation**, Michigan State University, East Lansing, USA.
1. **Frans VF** (2015). Recolonization of the New Zealand sea lion (*Phocarctos hookeri*): using predictive niche models to identify suitable breeding habitats for management. **MSc. Thesis**, Georg-August-Universität-Göttingen (University of Göttingen), Göttingen, Germany.

SOFTWARE

2. Cai M, Li Y, Colbry D, **Frans VF**, Zhang Y (2024). seesus: a social, environmental, and economic sustainability classifier. **PyPI**. [8,556 downloads]
1. Li Y, **Frans VF**, Song Y, Cai M, Zhang Y, Liu J (2023). SDGdetector: Detect SDGs and targets in text. **CRAN R-project**. [9,397 downloads]

DATASETS

3. **Frans VF** (2021). Predicted suitable sites for NZ sea lions. **New Zealand Department of Conservation**.
2. **Frans VF**, Augé AA (2016). Whale Sighting Distribution (1990-2015) in inshore waters of the Falkland Islands. **South Atlantic Environmental Research Institute**.
1. **Frans VF**, Augé AA (2016). Whale Sightings (1940-2015) in inshore waters of the Falkland Islands. **South Atlantic Environmental Research Institute**.

TV/NEWS COVERAGE

21. **Dynamic Ecology**. ESA 2026 reflections. Aug. 4, 2026.
20. **Science for the Church**. Faithful Women in Science. Nov. 11, 2025.
19. **Mediapart**. Biodiversité : les espèces se déplacent, les scientifiques sont perplexes. Nov. 10, 2024.
18. **Stanford University**. 2024 cohort of Stanford Science Fellows named. April 19, 2024.
17. **The Chimes**. New Zealand sea lion conservation: A Q&A with ecologist Veronica Frans. Feb. 19, 2024.
16. **Root & Vine Magazine**. Agape love for creation: an ecologist's call. Nov. 14, 2023.
15. **Otago Daily Times**. New tool to predict, plan for sea lion colony sites. Oct. 3, 2022.
14. **The Conversation**. Making room for wildlife: 4 essential reads. Jun. 6, 2022.
13. **CNN**. 'Babysitting' the next generation of New Zealand's endangered sea lions. *Travel*. May 3, 2022.
12. **Tagesspiegel**. Seelöwen-Kinderstube auf dem Golfplatz. *Wissen*. Dec. 9, 2021.
11. **Little News Ears**. Sea Lions and People Must Make Friends. *World Kidlines with Paxton*. Dec. 5, 2021.
10. **Washington Post**. 'Cheeky' sea lions are returning to New Zealand's shores — and locals are learning to share the coast. *World*. Nov. 13, 2021.
9. **Smithsonian Magazine**. After Being Hunted to Near-Extinction, New Zealand Sea Lions Are Reclaiming the Mainland. *Smart News*. Nov. 11, 2021.
8. **Natur**. Platz für die seltensten Seelöwen gesucht. *Umwelt+Natur*. Nov. 10, 2021.

7. **New York Times**. New Zealand's Sea Lions Are Back, and Crashing Golf Courses and Soccer Matches. *Science, Trilobites*. Nov. 9, 2021.
6. **Gizmodo**. Sea Lions Are Reclaiming Their Territory in New Zealand, Humans Be Damned. Nov. 8, 2021.
5. **BioLogos**. Veronica Frans: seeking answers around the world. Feb. 03, 2021.
4. **Newsletter of the American Scientific Affiliation and Canadian Scientific and Christian Affiliation**. Profile of Transformation: Veronica Frans. Summer 2020, 62(2):6.
3. **The Bridge**. Traveling scientist pursues PhD. Summer 2018, 10(1):27.
2. **Popular Science**. Local knowledge can save endangered animals. Dec. 6, 2017.
1. **Falkland Islands TV (FITV)**. *Falklands in Focus*, Stanley, Falkland Islands. May 16, 2016. Television. Topic: washed up sei whale at Cape Dolphin. 2016.

BIOGRAPHIES

TEXTBOOKS

1. **Environmental Science: Caring for the Creator's World**. McReynolds M, McReynolds K. *Creation Caregiver: Veronica Frans*. Classical Academic Press, 2025.

MOVIES/TV SERIES

TV SERIES

1. **The Big Questions Series – With Support from the John Templeton Foundation**. Season 2. *Veronica Frans – Humans' Place in Nature*. Windrider Studios. (*upcoming*).

PUBLIC EXHIBITS

PUBLIC EXHIBITS

1. **Sea Lion September: Educational Exhibition.** *Predicted suitable sites for NZ sea lion breeding colonies on mainland NZ*. Ōwaka Community Library and Catlins Information Centre, Ōwaka, New Zealand. New Zealand Sea Lion Trust, Sep. 15-29, 2026.

SPEECHES

CEREMONIES

1. **BioLogos**. Frans VF. *BioLogos' Future*. Deb Haarsma's Presidential Celebration. Jan. 20, 2025.

CONFERENCES

1. **American Scientific Affiliation**. Frans VF. *Be Bold*. ASA Annual Meeting. Nov. 20, 2022.

INTERVIEWS

PODCASTS & YOUTUBE

2. **Uncommon Pursuit**. Frans VF, Weitnauer C. *Why Should Christians Care for Creation?* Jun. 14, 2022.
1. **Language of God Podcast**. Hoogerwerf C, Stump J, Bouma-Prediger S, Lindroth R, Frans VF, Wirzba N, Miller M, Roles S. *Creation Groans | World of Wounds*, Jun. 16, 2022.

PANELS

6. **ASA 2026 Meeting**. Cook K, Evans B, Frans VF, Gibson M, Kaita R, Strand M, Thoelen R, Weins R. *Faithful Presence in Graduate School and Industry*. Wenham, Massachusetts, Jul. 25, 2026.
5. **ASA 2025 Meeting**. Schwartz D, Ding B, Dube B, Fung E, Frans VF, Ravichandran M. *Faith and work for science: flourishing in challenging times.* Lakewood, Colorado, Jul. 19, 2025.
4. **ASA/CSCA 2023 Meeting**. Strickland D, Frans VF. *Early Career Panel with 2018 Nobel Laureate Donna Strickland*. Toronto, Canada, Jul. 29, 2023.
3. **Christian Women in Science - ASA 2022**. Curry J, Best V, Billman L, Chappell D, Frans VF, Miller RD, Toronchuk J. *Women in the American Scientific Affiliation: Past, Present, and Future*. San Diego, California, Jul. 31, 2022.
2. **BioLogos Faith & Science 2022**. Hayhoe K, Frans VF. *Climate Change: Student Session*. Grand Rapids, Michigan, Apr. 11, 2022.

1. **BioLogos 2021 Creation Care Summit**. Frans VF, Bouma-Prediger S, Stump J. *Are humans above nature?* Grand Rapids, Michigan, Oct. 9, 2021.

INVITED TALKS

INVITED SEMINARS

11. **Stanford University** (2026). Celebrating the mathematical model that made modern ecology: one hundred years of Lotka-Volterra and beyond. Oceans Department. Stanford, California.
10. **University of Massachusetts Amherst** (2025). Humans' place in nature and niches: updating ecological theories and methods to build a sustainable world. Department of Environmental Conservation. Amherst, Massachusetts.
9. **Shanghai Jiao Tong University** (2025). Humans' place in nature and niches: updating ecological theories and methods to build a sustainable world. Shanghai, China.
8. **Beijing Normal University** (2025). Humans' place in nature and niches: updating ecological theories and methods to build a sustainable world. Beijing, China.
7. **University of California Berkeley** (2024). Humans' place in nature and niches: updating ecological methods, applications, and theory for coexistence and sustainability. Berkeley, California.
6. **Calvin University** (2024). Sea lions crossing: planning for human-wildlife coexistence in the strangest of places. Biology and Geography Seminar Series. Grand Rapids, Michigan.
5. **Calvin University** (2024). The state of species distribution modeling in a human-dominated world. Math and Statistics Seminar Series. Grand Rapids, Michigan.
4. **Michigan State University STEM Ambassadors Program** (2023). Science communication in a faith-based world. East Lansing, Michigan.
3. **Messiah University** (2022). Making space for sea lions: planning for coexistence in the strangest of places. Biological Sciences Seminar Series. Mechanicsburg, Pennsylvania.
2. **Anglia Ruskin University** (2020). What local ecological knowledge can tell us about whales in the Falkland Islands. Biology Seminar Series. Cambridge, England (virtual).
1. **University of Alaska Fairbanks** (2016). A whale of a tale: using local ecological knowledge to investigate baleen whale recovery and distribution around the Falkland Islands., Fairbanks, Alaska.

INVITED KEYNOTES

1. **American Scientific Affiliation** (2020). Student Keynote. State of the ASA.

INVITED PRESENTATIONS

9. **Ecological Society of America** (2026). Frans VF, Narla A, De Leo G, Micheli F. Lotka-Volterra and the genesis of theoretical ecology. Salt Lake City, Utah.
8. **Stanford Science Fellows Symposium** (2026). Frans VF, Barbier M, Collins D, D'Andrea R, Leibold M, Miller ZR, Narla A, Ramesh A, Rogers R, Xu L, De Leo G, Micheli F. One hundred years of Lotka-Volterra and beyond. Stanford University. Stanford, California.
7. **International Workshop on Geography and Sustainability** (2025). Frans VF, Liu J. Metacoupled species distribution models: building a new frontier for a fast-growing world. Xi'an, China.
    - Award: **2025 Best Speaker Award.**
6. **Stanford University** (2025). Frans VF. Species distribution modeling for real-world applications and human-wildlife coexistence. Cultural Resources and Sustainability Conference. Pacific Grove, California.
5. **Stanford Science Fellows Symposium** (2025). Frans VF, Carter NH, Micheli F. Predicting human-wildlife interactions in a changing world. Stanford University. Stanford, California.
4. **International Association for Landscape Ecology - North America** (2025). Frans VF, Liu J. Metacoupled species distribution models: proposing a new frontier. Raleigh, North Carolina.
3. **Ecological Society of America** (2024). Frans VF, Peres-Neto P, Thébault E, Leibold MA. Inferring process from patterns in metacommunities: why is it so problematic? Long Beach, California.
2. **BioLogos 2023 Creation Care Summit** (2023). Unexpected neighbors: biodiversity and us. Grand Rapids, Michigan.

1. **BioLogos 2021 Creation Care Summit** (2021). Unexpected neighbors: biodiversity and us. Grand Rapids, Michigan.

CONFERENCE PRESENTATIONS

PRESENTATIONS

6. **International Association for Landscape Ecology - North America** (2024). Frans VF, Liu J. Modeling human influence on species distributions: gaps in theory, methods, and applications for the Anthropocene. Oklahoma City, Oklahoma.
5. **Kellogg Biological Station LTER** (2020). Frans VF. New era, new niche, new theory: revising ecological niche theory to account for human influence in the Anthropocene. *Kellogg Biological Station LTER Graduate Fellow Lightning Talks*. Hickory Corners, Michigan.
4. **New Zealand Department of Conservation** (2019). Frans VF. New Zealand sea lion habitat mapping: final report. *Conservation Services Programme (CSP) and New Zealand sea lion Threat Management Plan (TMP) - Technical Working Group (October 2019)*. Wellington, New Zealand.
3. **New Zealand Department of Conservation** (2019). Frans VF. Finding suitable habitats for the recolonizing New Zealand sea lion. *CSP and New Zealand sea lion TMP - Technical Working Group (March 2019)*. Wellington, New Zealand.
2. **R-Ladies East Lansing** (2018). Frans VF. Kickstarting a literature review with R. *R and Data Science Lightning Talks*. East Lansing, Michigan.
1. **International Association for Landscape Ecology** (2016). Frans VF, Augé AA, Engler JO, Edelhoff H. A whale of a tale: using local knowledge to predict baleen whale distribution around the Falkland Islands. Asheville, North Carolina.

POSTERS

2. **Traits Conference** (2025). Frans VF, Carter NH, Micheli F. Predicting human-wildlife interactions in a changing world. Asilomar, California.
1. **International Association for Landscape Ecology World Congress** (2015). Frans VF, Augé AA, Engler JO, Edelhoff H, Chilvers BL, Erasmi S, Balkenhol N. Recolonization of the New Zealand sea lion (*Phocarctos hookeri*): using Maxent to identify suitable breeding habitats for management. Portland, Oregon.

ORGANIZED SPECIAL SESSIONS

2. **Ecological Society of America** (2026). Miller Z, Frans VF, Ramesh A. One Hundred Years of Lotka-Volterra and Beyond. Salt Lake City, Utah.
1. **International Workshop on Geography and Sustainability** (2025). Yang W, Yang H, Frans VF, Liu J. Operationalizing the Metacoupling Framework for Addressing Global Sustainable Development Challenges. Xi'an, China.

HOSTED WORKSHOPS

DATA & CODING IN R

5. **R-Ladies East Lansing**, Data viz 2.0. East Lansing, MI. Feb. 23, 2020.
4. **R-Ladies East Lansing**, Data wrangling and visualization. East Lansing, MI. Oct. 21, 2019.
3. **Social Science Data Analytics Initiative**, Data visualization in R. East Lansing, MI. Jun. 24, 2019.
2. **R-Ladies East Lansing**, Introduction to data visualization: GGPLOT2. East Lansing, MI. Oct. 8, 2018.
1. **R-Ladies East Lansing**, Introduction to tidy data with R. East Lansing, MI. Nov. 5, 2018.

CAREER MENTORSHIP

3. **Emerging Scholars Network**, Flourishing as a person. ASA 2022 Meeting, San Diego. CA. Jul. 2022.
2. **American Scientific Affiliation & Emerging Scholars Network**, Growing in your vocation as a science professional, Online Student & Early Career Mini-Conference. Virtual. Jul. 2020.
1. **Christian Women in Science**, Falling for God through your vocation. CWiS Live. Virtual. Oct. 2020.

OUTREACH & ENGAGEMENT

SCHOLAR IN RESIDENCE

1. **Windrider Fellows Program** (2026). Ecology and our place in the world. Windrider Institute, Sundance Film Festival, Salt Lake City, Utah.

PRESENTATIONS

5. **Earth Day Panel: God's Power, our Stewardship of His Planet** (2026). Earth Day 2026: Humans and Nature. Black Scholars and Professionals. Intervarsity.
4. **Association of Christian Schools International Science Fair** (2022). Science & Faith Panel: Picture a Scientist with BioLogos. Azusa Pacific University.
3. **Chamber of Commerce** (2016). Return of the whales in the Falkland Islands' waters. Stanley, Falkland Islands.
2. **Geospatial Data Visualization Workshop for High School Students** (2015). From a big city to a big world: opportunities in science. City University of New York.
1. **Friends of Fukuoka** (2012). アラスカの漁業 [Alaskan Fishing]. Fukuoka, Japan.

BLOGS

5. **Methods Blog**. Frans VF. Let's get real: translating species distribution models into conservation practice. Nov. 10, 2021.
4. **Conservation Blog**. Frans VF. The unique behaviour of New Zealand sea lions. New Zealand Department of Conservation. Nov. 9, 2021.
3. **Methods Blog**. Engler JO, Frans VF, Augé AA. Multi-state species distribution models: what to do when species need multiple habitats. Sep. 4, 2017.
2. **SAERI Blog**. Frans VF. Marine Spatial Planning: Mapping historical whale sightings to manage the future! May 3, 2016.
1. **SAERI Blog**. Frans VF. Marine Spatial Planning: Mapping historical whale sightings to help manage the future. Nov. 20, 2015.

CREATIVE WRITING

2. **Emerging Scholars Network**. Frans VF. Be bold: a lesson from the gentle gentoos. Nov. 20, 2022.
1. **Climate Vigil Songs Worship Guide**. Frans VF. Music album companion: Water to Wine, p. 24. 2022.

PEER REVIEW SERVICES

Austral Ecology (1); Biodiversity and Conservation (3); Biological Conservation (2); Ecography (1); Ecological Applications (2); Environmental Management (1); Journal of Applied Ecology (2); Journal of Avian Biology (12); Methods in Ecology and Evolution (1)

PROFESSIONAL MEMBERSHIPS

American Association for the Advancement of Science (AAAS); American Scientific Affiliation (ASA); British Ecological Society; Ecological Society of America (ESA); International Association for Landscape Ecology (IALE); International Biogeography Society (IBS); Society for Conservation Biology; The Wildlife Society

PROFESSIONAL DEVELOPMENT

ATTENDED CONFERENCES

International Workshop on Geography and Sustainability 2025; ASA Meeting 2019-2023, 2025; ESA 2024, 2026; IALE North America 2016, 2024, 2025; BioLogos Creation Care Summit 2021, 2023; MSU Graduate Academic Conference 2019-2022; BioLogos Faith & Science 2022; IALE World 2015

ATTENDED WORKSHOPS

- **Institut Natura e Teoria en Pirenèus** **2026**
  Honest Science Workshop / Work Alive Retreat
- **Stanford Graduate Summer Institute** **2026**
  Jumpstart Your Academic Job Search

- **Institut Natura e Teoria en Pirenèus** **2025**
  2025 INTP Autumn School: Syntheses in theoretical community ecology
- **Stanford University** **2025**
  The science of being memorable and Influencing decisions
- **Michigan State University** **2018; 2021**
  Broader impacts of research; Community-engaged scholarship
- **The International Biogeography Society** **2021**
  Bayesian additive regression tree (BART) species distribution models
- **USGS Patuxent Wildlife Research Center** **2020**
  Spatial capture-recapture modeling (oSCR)
- **Institute of Environmental Change and Society** **2020**
  Introduction to Generalized Additive Models (GAM) with R and mgcv
- **International Association for Landscape Ecology** **2015; 2016**
  Model data preparation / Introduction to HexSim / Species distribution modeling (SDM)

GRADUATE-LEVEL COURSES IN MODELING AND STATISTICS

- **Michigan State University** **2018 - 2022**
  Bayesian inference Monte Carlo · Geosimulation (agent-based modeling in Python) · Introduction to meta-analysis in ecology · Modeling natural resource systems · Modern statistical models in ecology · Population & community ecology · Resource competition theory seminar · Spatial data analysis · Spatial ecology · Statistical methods in ecology and evolution I & II · Statistical methods in temporal ecology · Theoretical population and community ecology
- **Georg-August-University Göttingen** **2012 - 2015**
  Biodiversity and ecosystem functioning · Ecological modeling · Ecological models - from populations to networks
- **Lincoln University** **2012 - 2015**
  Advanced geographic information systems · Research methods in ecology

LEADERSHIP POSITIONS

PROFESSIONAL SOCIETIES

- **Vice President**, Christian Women in Science (American Scientific Affiliation) **2021 - present**
- **Executive Director Search Committee**, American Scientific Affiliation **2022**

COMMUNITY ENGAGEMENT

- **Voice**, BioLogos Speakers Bureau, Grand Rapids, Michigan **2022 - present**
- **Science Advisor**, The Cross Impact, Lagos, Nigeria **2019 - 2020**

CONFERENCE ORGANIZATION & SERVICE

- **Special Session Co-Organizer**, Ecological Society of America **2026**
- **Special Session Co-Organizer**, International Workshop on Geography and Sustainability **2025**
- **Graduate Academic Conference Committee**, Council of Graduate Students, MSU **2019 - 2022**

CAMPUS ACTIVITIES

- **Fisheries & Wildlife Representative**, Council of Graduate Students, MSU **2019 - 2022**
- **Associate**, Social Science Data Analytics Initiative, Michigan State University **2019 - 2021**
- **Workshop Co-organizer**, R-Ladies East Lansing, Michigan State University **2018 - 2020**
- **Director**, Statistics in the Community, Michigan State University **2019 - 2020**