Stanford

Richard Grewelle

Ph.D. Student in Biology, admitted Autumn 2016

Bio

BIO

Richard Grewelle is a current PhD student motivated to understand ecological and evolutionary underpinnings of wildlife disease systems. Prior research areas involve bioinformatics, phylogenetics, and disease ecology. Although with previous experience in terrestrial diseases, including Y. pestis (plague), Richard pursues marine disease ecology due to the lack of knowledge surrounding systems we hardly encounter. Marine diseases present significant challenges to not only biologists; they may devastate fragile ecosystems supporting fisheries or providing ecological services. Richard works to bridge the gap between theoretical and empirical studies, employing population and genetic data to inform theoretical models of disease transmission. Despite the economic significance of this research, conservation of marine species and basic biological understanding are at its heart.

HONORS AND AWARDS

- ARCS Fellowship, Stanford University (2020-2021)
- Stanford Graduate Fellowship, Stanford University (2016-2019)

EDUCATION AND CERTIFICATIONS

- B.S. Hons, University of Kentucky , Chemistry (2016)
- B.S. Hons, University of Kentucky , Mathematics (2016)
- B.S. Hons, University of Kentucky , Biology (2016)

Publications

PUBLICATIONS

- **Redefining risk in data-poor fisheries** *FISH AND FISHERIES*
  Grewelle, R. E., Mansfield, E., Micheli, F., De Leo, G.
  2021
- **Models with environmental drivers offer a plausible mechanism for the rapid spread of infectious disease outbreaks in marine organisms.** *Scientific reports*
  Aalto, E. A., Lafferty, K. D., Sokolow, S. H., Grewelle, R. E., Ben-Horin, T., Boch, C. A., Raimondi, P. T., Bograd, S. J., Hazen, E. L., Jacox, M. G., Micheli, F., De Leo, G. A.
  2020; 10 (1): 5975
- **Estimating the Global Infection Fatality Rate of COVID-19**
  Grewelle, R. E., De Leo, G. A.
  MedRxiv.
  2020
- **Gene drives for schistosomiasis transmission control.** *PLoS neglected tropical diseases*

Maier, T. n., Wheeler, N. J., Namigai, E. K., Tycko, J. n., Grewelle, R. E., Woldeamanuel, Y. n., Klohe, K. n., Perez-Saez, J. n., Sokolow, S. H., De Leo, G. A., Yoshino, T. P., Zamanian, M. n., Reinhard-Rupp, et al

2019; 13 (12): e0007833

- **COMPUTER VISION AND MACHINE LEARNING ENABLE ENVIRONMENTAL DIAGNOSTICS FOR TARGETING SCHISTOSOMIASIS CONTROL**

  Sokolow, S., Liu, Z., Chamberlin, A., Le Boa, C., Wood, C., Jones, I., Grewelle, R., De Leo, G.

  AMER SOC TROP MED & HYGIENE.2018: 418

- **The influence of locus number and information content on species delimitation: an empirical test case in an endangered Mexican salamander** *Molecular Ecology*

  Hime, P. M., Hotaling, S., Grewelle, R. E., O'Neill, E. M., Voss, S. R., Shaffer, H. B., Weisrock, D. W.

  2016