

## Science & Society Distinguished Public Talks

Co-sponsored by the UNM Chapter of Sigma Xi, The Scientific Research Honor Society, the Albuquerque Section of the Institute of Electrical & Electronic Engineers (IEEE) and its Life Members Affinity Group, Sigma Xi (the Scientific Research Honor Society), the UNM Department of Physics & Astronomy and Interdisciplinary Science

### *Presents*



## **Assessing PFAS contamination levels and toxicity in the wildlife of Holloman Lake, New Mexico: Key Insights from Five Years of Research.**



By

**Jean-Luc E. Cartron**

**March 26, 2026 5:30 PM**

UNM Dept. of Physics, Astronomy, & Interdisciplinary Research, 210 Yale Blvd NE Rm 1100

And ZOOM

<https://unm.zoom.us/j/91448217411>

**Free and open to the public  
Meet & Greet with refreshments at 5 PM**

**Jean-Luc E. Cartron, MD, PhD** is Principal Investigator, Research Professor of Biology. With a broad scientific background, Dr. Cartron has more than 30 years of experience in ecological and environmental research. He is the main author or editor of several books, including *Wild Carnivores of New Mexico* (UNM Press, 2023, 2024 Arizona-New Mexico Book Award), and has published numerous peer-reviewed scientific articles. He recently led the effort to develop the New Mexico Wildlife Corridors Action . His active research also includes the impact of climate change on biotas and ecosystems in the Southwest. He has had a key role in the research on PFAS contamination and toxicity at Holloman Lake since 2021.

### **Abstract**

PFAS (per- and polyfluoroalkyl substances) are "forever chemicals" found in the blood of people and animals worldwide due to their widespread use, extreme persistence, and ability to bioaccumulate. Since 2021, the UNM Museum of Southwestern Biology (MSB) has been investigating PFAS contamination at Holloman Lake in Otero County, New Mexico. Following reported detections in the local groundwater, we discovered record-level PFAS contamination in surface water, soils, algae, plants, and animals in and around the lake, located in the southwestern corner of Holloman Air Force Base. We also showed the importance of past inundation events in expanding the immediate footprint of the contamination while also detecting the chemical signatures of several generations of Aqueous Film-Forming Foams (AFFFs) used by the military. Holloman Lake is a desert oasis that harbors a rich fauna including thousands of migratory and non-migratory birds. As we investigate whether PFAS contamination reaches toxic levels in the local wildlife, there are also possible public health concerns to consider, including those related to hunting on a more regional scale.