

## **Dr. David Herbst Biography**

Dr. David “Dave” Herbst is a widely respected aquatic ecologist whose research has focused on saline lake and stream ecosystems for nearly five decades. He began his scientific work in the eastern Sierra Nevada in 1976 at Mono Lake, where his graduate research at Oregon State University established the foundation for a career centered on aquatic ecology and environmental management. Since the late 1980s, he has conducted research through the Sierra Nevada Aquatic Research Laboratory and as a research scientist affiliated with both University of California, Santa Barbara and University of California, Santa Cruz.

Dr. Herbst is especially recognized for his nearly 50 years of research at Mono Lake, where he has studied the ecology and physiology of the alkali fly and the nearshore littoral ecosystem. His work examined salt adaptation, salinity effects on alkali fly growth and productivity, algae dynamics, tufa formation, and habitat relationships of larvae and pupae. This research has helped advance understanding of how lake level and salinity influence ecosystem productivity and waterbird food resources at Mono Lake.

Beyond Mono Lake, Dr. Herbst has conducted studies at saline lakes throughout the western United States, including Owens Lake, Abert Lake, Great Salt Lake, and Walker Lake, as well as spring ecosystems across the Great Basin. His broader stream ecology research has addressed climate change impacts, alpine stream systems, invasive species, grazing impacts, mine drainage remediation, habitat restoration, and aquatic biodiversity monitoring. Throughout his career, he has focused on providing science to support environmental management and regulatory decision-making.

Following retirement and relocation to Nevada City, California, Dr. Herbst has continued his research as a board member and scientist with the Sierra Streams Institute, where he remains active in stream biodiversity studies, DNA barcoding of aquatic insects, and saline lake research across California and the western United States.