

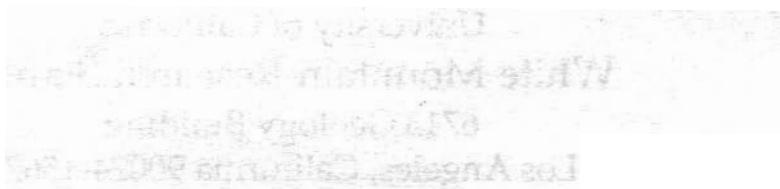
# Natural History of Eastern California and High-altitude Research

White Mountain Research Station  
Symposium Volume 3

University of California  
White Mountain Research Station  
6713 Geology Building  
Los Angeles, California 90024-1567

Edited by  
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and  
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## Introduction

White Mountain Research Station (WMRS) is located near Bishop, California, about 420 km (260 mi) north of Los Angeles and east of the Sierra Nevada. The Station comprises four separate laboratory sites: the Bishop Facilities, 6 km (4 miles) east of Bishop, at an elevation of 1,234 m (4,050 ft) above sea level; the Crooked Creek Facilities in the White Mountains at an elevation of approximately 3,095 m (10,150 ft); the Barcroft Facilities at an elevation of approximately 3,800 m (12,500 ft)—the eleventh highest high-altitude station in the world and the fourth highest in North America; and the Summit Laboratory atop White Mountain Peak at an elevation, somewhat below that of Mount Whitney (4,418 m / 14,495 ft), of 4,342 m (14,246 ft)—the fourth highest high-altitude laboratory in the world and the highest in North America. The three WMRS sites above 3,000 m are in the Inyo National Forest.

White Mountain Research Station is ideally suited for studies in physiology, biology, archaeology, and geology. Past and ongoing research at all sites includes studies in ecology, behavior, and physiology of land vertebrates, insects, and plants; geology, geomorphology, and biogeography; archaeology and anthropology; and astronomy, astrophysics, and cosmology.

White Mountain Research Station Symposium Volume 1, published in 1986, was the first of the Station's research volumes to develop and expand upon the natural history baseline for the White-Inyo Range and to summarize laboratory research taking place at the Station. Volume 2, *Plant Biology of Eastern California*, printed in 1988, was focused on plant biology and botany of the region and was dedicated to the region's pioneering botanist, Mary DeDecker.

The volumes have increased in length (Volume 1 was 240 pages; Volume 2, 364 pages; Volume 3, 488 pages) and complexity of production since the first Symposium. Each volume has set higher standards of excellence. The quality and sophistication of the research have created a scientific series that requires notice of all those working in the region and beyond. Ideas, fostered by the work of students and professionals in an interdisciplinary envi-

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ronment and based on previous research and earlier volumes, have developed and evolved through this symposium series. With publication of each volume, there is greater understanding of interactions of the biota and between the biota and abiotic environment. Because of this series and the research that spawned it, there is now a clearer understanding of the habits of prehistoric native Americans who lived in the White Mountains and vicinity. The distribution of rock types in the region and the chronology of their contained fossil faunas are better understood because of research at the Station, research which has opened scientific debate with both regional and international implications. The White Mountain flora has now been censused sufficiently to allow botanists to turn greater attention to the origins and evolution of the extraordinary plant assemblage that lives under desert or arctic desert conditions along a transect spanning elevations from 4,000 to 14,250 feet. Finally, a small but exceptional group of physiologists continues research on acclimatization and the physiological effects of altitude on humans and a variety of animal species.

The theme of this volume, the third in the series, returns to the natural history of the region and paints a picture of the richness of research that is being carried out there.

The fourth White Mountain Research Station Symposium, to be held in September of 1991, will be devoted to the history of water in the region. Future natural history symposia may address studies of the fragile plant and vertebrate faunas, their distributions, evolutionary adaptations, and present and future threats to their existence. Studies of insects in the region remain in their infancy and clearly require greater attention from entomologists.

Again, I wish to thank the symposium authors, past and present, for their dedication to the science of the fascinating White-Inyo region and for their efforts to make this series significant and memorable.

Clarence A. Hall, Jr., Director  
White Mountain Research Station

# *Natural History of Eastern California and High-altitude Research*

*White Mountain Research Station Symposium Volume 3  
21-24 September 1989*

*Edited by Clarence A. Hall, Jr., Victoria Doyle-Jones, and Barbara Widawski*

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