Preface

The Sixth California Islands Symposium was attended by over 300 people and covered a variety of disciplines and subjects included in the 163 oral and poster presentations. This symposium was somewhat unique in that topics of discussion included the biological, physical, cultural and historical features of a series of islands rather than a specific subject matter. The interdisciplinary approach allowed participants to better understand how their area of interest may be influenced by work in other seemingly unrelated fields of study. For example, understanding the geology of an area leads to insights regarding soils and hydrology that are in turn basic to what type of vegetation can be supported. The vegetation type and structure dictates aspects of water retention in soils and affect what invertebrate and vertebrate fauna can be supported. Influencing all of these terrestrial processes is the profound effect that the ocean has in regulating such abiotic factors as temperature, soil salinity and precipitation, that in turn determine what marine or marine associated bird and mammal species can be sustained on the islands. Furthermore, with this interdisciplinary approach we can learn how humans survived in, interacted with, and modified the island environment over the last several thousand years.

The California Islands offer unique biological and cultural resources. While not undisturbed, they offer an opportunity to study systems that may not have undergone the degree of change that has occurred in the coastal mainland zones. This allows us to glimpse what the mainland may have been like at one time, while also providing the opportunity to gather information on biological and cultural resources that were or are unique to these islands.

Humans have had a profound impact on the terrestrial and marine ecosystems associated with the California Islands. Probably one of the greatest anthropogenic influences has been the introduction of exotic species. The intentional or accidental introduction of mammals such as black rats, cats, rabbits, pigs, sheep, deer and goats have in some cases caused ecological cascade effects, resulting in the loss of biological diversity and damage to or loss of cultural resources. The keynote address, given by Dr. James Estes, underlined the magnitude of effects that can be caused by these types of ecological cascades and how their effects may be both profound and irreversible.

Some of these exotic species, such as the feral pigs, have had direct physical impacts and have caused considerable disturbance to archeological sites. Others species such as the goats and sheep have caused large-scale erosion affecting vegetation and associated fauna as well as uncovering sensitive archeological sites. Efforts by land managers have led to the removal of many of these exotic animals and progress has been made on studying and in some cases stemming the onslaught of exotic plant species. Removal of these species from the California Islands brings us to a new era of both documenting the natural recovery of plants and animals on the islands as well as initiating proactive efforts associated with restoring species to their former habitats.

While there are certainly still many issues to be addressed on the California Islands, such as preventing the introduction of new exotic species or diseases, finding ways to accommodate public visitation and military programs while conserving natural and cultural resources, and seeking ways to restore damaged or lost resources, research and restoration efforts conducted over the last few decades have greatly increased our understanding of island ecosystems and have been fundamental to the long-term preservation of these resources. Continued research focused on the ecology and the history of the islands is needed to expand our knowledge and increase the chances for success of restoration and management efforts. While this continued research around the islands are paramount, future work should include expanding education programs so people learn about the uniqueness and fragility of these island environments. This education process will help ensure continued support of the work needed to conserve these exceptional resources.

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