

Editorial

Saline Systems highlights for 2005

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Abstract

On the 4th of July, 2005, the Saline Systems editorial group launched the new online open access journal, *Saline Systems*, with BioMed Central as the publisher. The scope of the journal includes both basic and applied research on halophilic organisms and saline environments, from gene systems to ecosystems. The stated goal of the journal is to meet publication needs for researchers working in coastal and inland saline environments and provide an interdisciplinary and readily accessible forum for scientists worldwide. The inaugural volume of the journal contains a significant number of high quality original research papers and reviews on a wide range of relevant topics. At the end of the launch period, from January 1, 2006 onwards, the journal will be introducing article-processing charges to cover the cost of publication. Charges will be partly or completely waived for authors from BioMed Central institutional subscribers and in cases of financial hardship.

Research papers

The first volume of *Saline Systems* [1] included research papers from genomics and proteomics to physiology, ecology, and limnology. On the molecular end of the spectrum, a paper by McCready et al. [2] provided an insightful DNA microarray study on the effects of UV radiation on gene expression in a model extreme halophile, which is highly resistant to solar radiation. Results indicated that genes for homologous recombination are induced by UV. Another molecular study was published by Kan et al. [3] on the environmental proteomics of Chesapeake Bay, Maryland, USA. This study demonstrated the power of metaproteomics to link taxonomic diversity, functional diversity, and biological processes in natural environments.

In one microbial ecology paper, Echigo et al. [4] surveyed the greater Tokyo area of Japan for halophilic bacteria, from the seashore to inland regions. Although samples collected from the seashore yielded much smaller total

numbers of bacteria than those of inland soil samples, the numbers of halophilic bacteria per gram were nearly the same. These results suggested that halophiles may be dispersed via dust storms originating in deserts in the interior Asia. In another ecological study, Major et al. [5] published the first in a series designed to catalog and characterize the Salt Plains National Wildlife Refuge ecosystem in Oklahoma, USA. Despite the harsh and highly variable conditions observed in this environment, a higher than expected phototrophic species diversity was observed.

Two research papers relevant to aquaculture reported studies on shrimp species, *Branchipus schaefferi* and *Artemia franciscana*. Sarma et al. [6] reported that both survival and offspring production of *B. schaefferi* are reduced at higher salinity levels, suggesting that this species is unlikely to be successful in colonizing inland saline water bodies and that proper conservation measures must be taken for their protection. Camargo et al. [7] reported studies on *A. franciscana* occurring along the Colombian