

# BILTEK-VII

INTERNATIONAL SYMPOSIUM ON CURRENT DEVELOPMENTS IN  
SCIENCE, TECHNOLOGY AND SOCIAL SCIENCES

## Proceedings Book



**EDITORS:**

**Dr. Ethem İlhan ŞAHİN**

**Dr. Jamal Eldin Fadoul Mohammed IBRAHIM**

**ISBN: 978-625-367-125-9**

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May 26-27, 2023 / Ankara, Turkiye



## PROCEEDINGS BOOK

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**IKSAD Publications - 2023©**

Issued: 14.06.2023

**ISBN: 978-625-367-125-9**

## THE CHANGING OF NARRAGANSETT BAY HABITAT BY LAND USE

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### **Abstract**

Climate change becomes a very serious treat that affect people and the environment. As consequences of climate changes, extreme weather conditions, flooding, drying, runoff pollution, and erosion are predicted to become more frequent. New England has showed the largest increase (61%) in extreme precipitation frequency in the U.S. Especially, Rhode Island has 81 % increases in frequency of extreme precipitation during 1948-2006. Narragansett Bay is located on the north side of the Rhode Island sound, and the bay is an important habitat for many species of flora and fauna. The purpose of this study is to determine what Narragansett Bay habitat is impacted by land use. According to the results, we concluded that the wetlands are really valuable today because the natural functions and public benefits of wetlands are well understood by both scientists and land managers. However, large gaps still exist in the public's understanding of what and where wetlands are, why they matter, and how they are protected. According to our study based on ArcGis, we have found that 3624.8255 acres of wetlands have been damaged by land use in Narragansett Bay. Also, according to data and maps, industrial (manufacturing, design, assembly, etc.) has the large damage on wetlands in Narragansett Bay. In addition, the surface area has been changed  $2.8 \times 10^6$  ft<sup>2</sup> was gained and  $2.6 \times 10^7$  ft<sup>2</sup> was lost because the sea level rises.

**Keywords:** Climate change, Narragansett Bay, land use