Restoration of the late "Kano Bay"

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Restoration of the ancient ‘Kano Bay’ by researching
the geological survey date and distribution of *Quercus phillyraeoides*

I.Introduction
About 6000 years ago, after the last glacial period, the Holocene glacial retreat(Jomon-kaisin)caused the sea level to rise 2 - 3 m due to the increase in the average temperature of the Earth. At that time, the ocean also progressed to the Tagata Plain of the Izu Peninsula, where ‘Kokano Bay ‘ is said to have formed. However, the coastline has not been found. Therefore, we conducted this research to try to prove the existence of this coastline.

II. Method
1. Geological survey data analysis
Extract data(including shells) from bowling data and make a distribution map.
Based on this distribution map, connect the columnar diagram of the silt layer and show it in section.
Radiocarbon dating of shells and confirmation of age.

2.Distribution Analysis of *Quercus Phillyraeoides*
Field study: Choose 15 locations on the Tagata Plain and investigate the distribution of *Quercus Phillyraeoides*
Collect the leaves of *Quercus Phillyraeoides* from coastal and inland areas, extract the DNA, and examine the genetic differences.

III.Results and Discussion
We analyzed the geological survey data and the distribution of *Quercus Phillyraeoides* . As a result, it was found that the silt layer (including shells) caused by the Holocene glacial retreat agree with the distribution of *Quercus Phillyraeoides* . Therefore, we could estimate predict the innermost part and the coastline of ‘Kokano Bay’.
We hope that this research will be useful for the disaster prevention of the area, assumed to be soft ground.

Keywords: the Holocene glacial retreat, Quercus phillyraeoides, Izu Peninsula