



APRU Multi-Hazards (MH) Summer School **19 Jul 2017**

# The TEAMS Project

(Tohoku Ecosystem-Associated Marine Science)  
For Reconstruction from GEJE and  
For Restoring a Rich Ocean through Science



**14:46 M9.0**  
- 500kmx200km

**15:08 Sanriku M7.5**  
**15:15 Ibaraki M7.3**  
**15:25 Ocean Trench M.7.4**

**Huge TSUNAMI coming**  
**33 minutes after GEJE**

Akihiro KIJIMA, Dr.  
Representative of TEAMS  
Prof. of Tohoku University























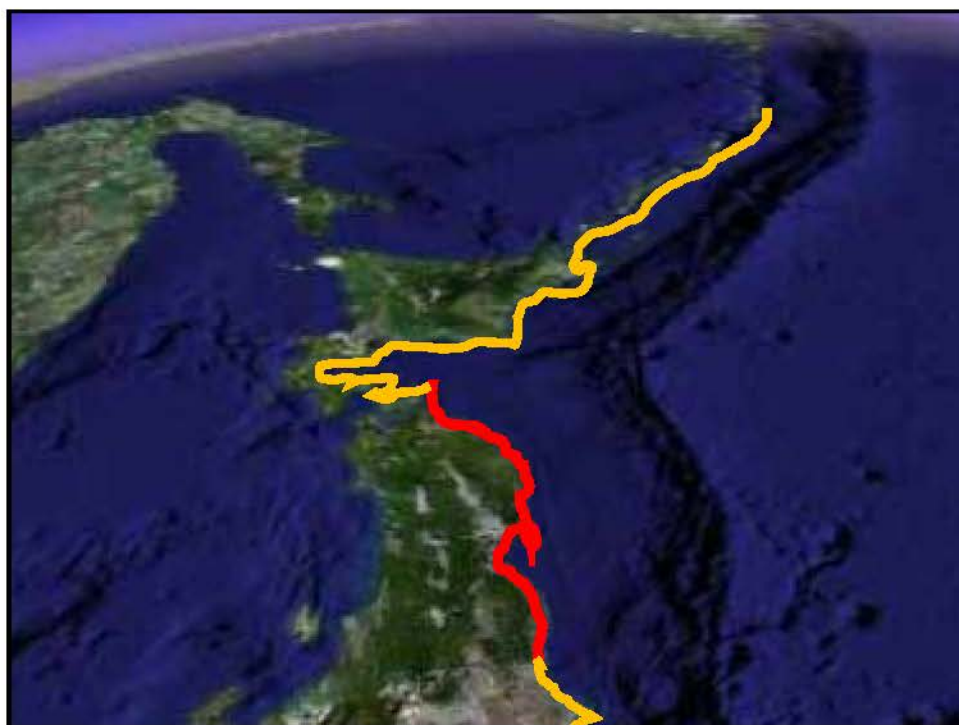






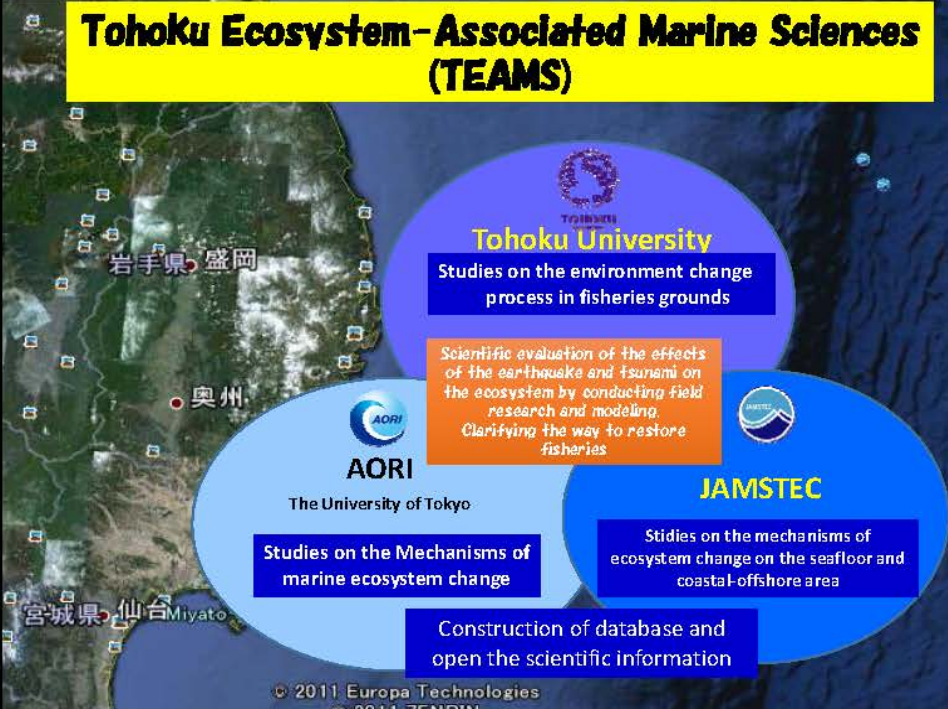








## Tohoku Ecosystem-Associated Marine Sciences (TEAMS)



**Tohoku University**  
Studies on the environment change process in fisheries grounds

*Scientific evaluation of the effects of the earthquake and tsunami on the ecosystem by conducting field research and modeling. Clarifying the way to restore fisheries*

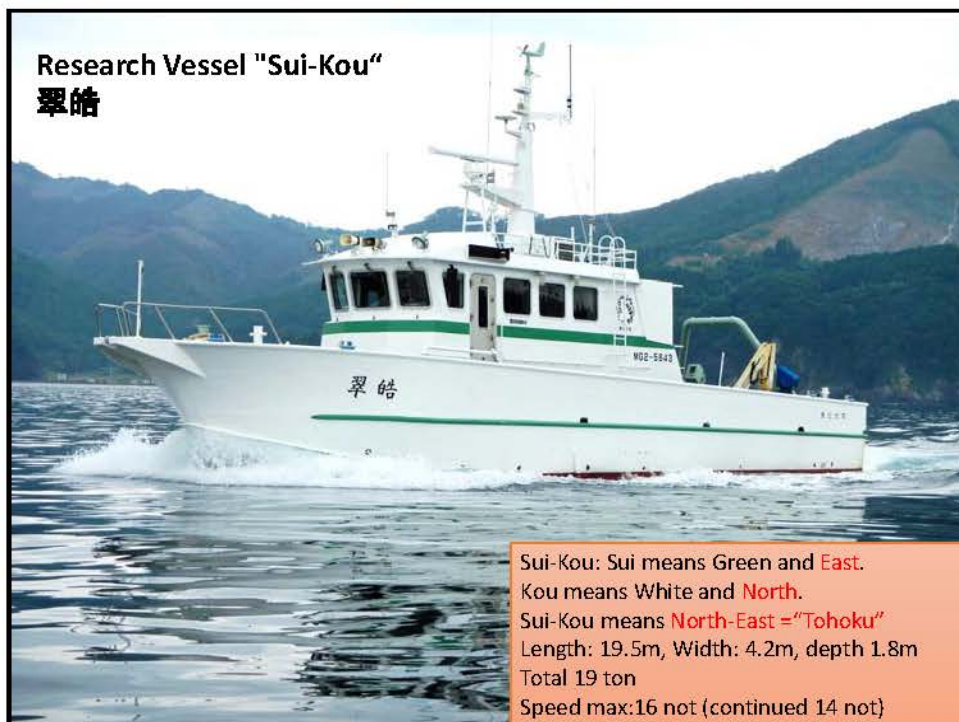
**AORI**  
The University of Tokyo  
Studies on the Mechanisms of marine ecosystem change

**JAMSTEC**  
Studies on the mechanisms of ecosystem change on the seafloor and coastal-offshore area

Construction of database and open the scientific information

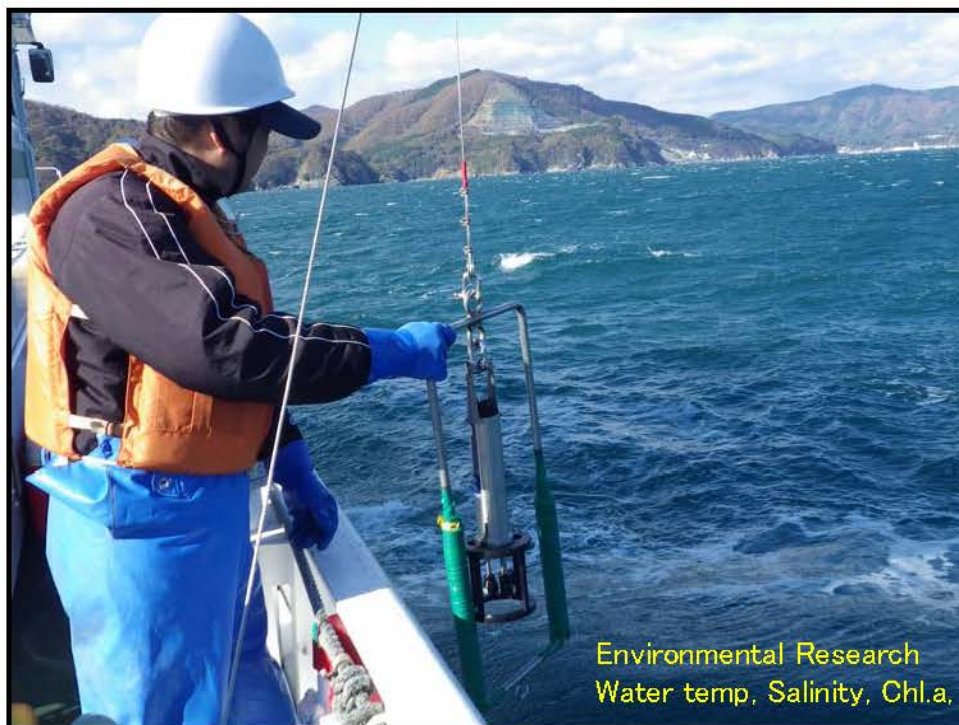
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Sui-Kou: Sui means Green and East.  
Kou means White and North.  
Sui-Kou means North-East = "Tohoku"  
Length: 19.5m, Width: 4.2m, depth 1.8m  
Total 19 ton  
Speed max:16 not (continued 14 not)









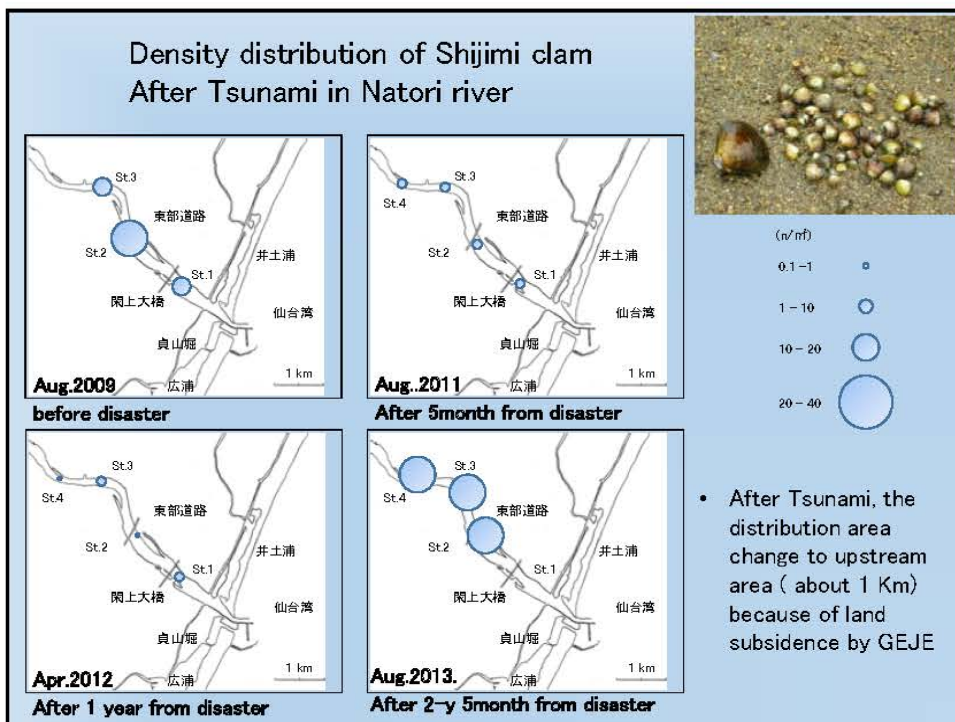
Investigation of flow direction and velocity

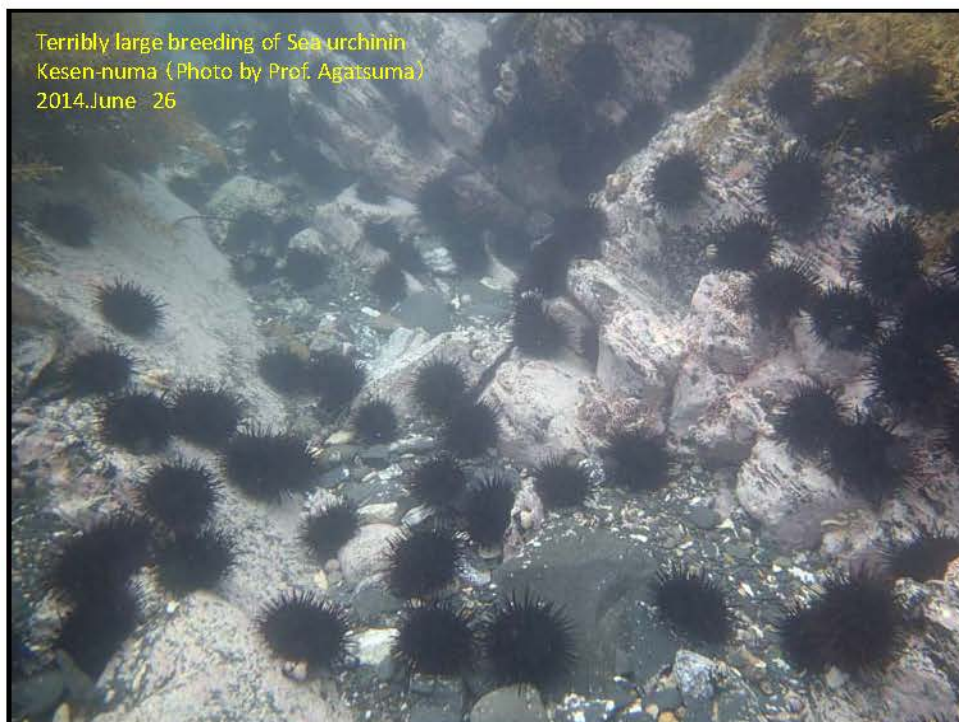


Real time data of WT, Sal, Chl.a, Cond. in Onagawa Bay

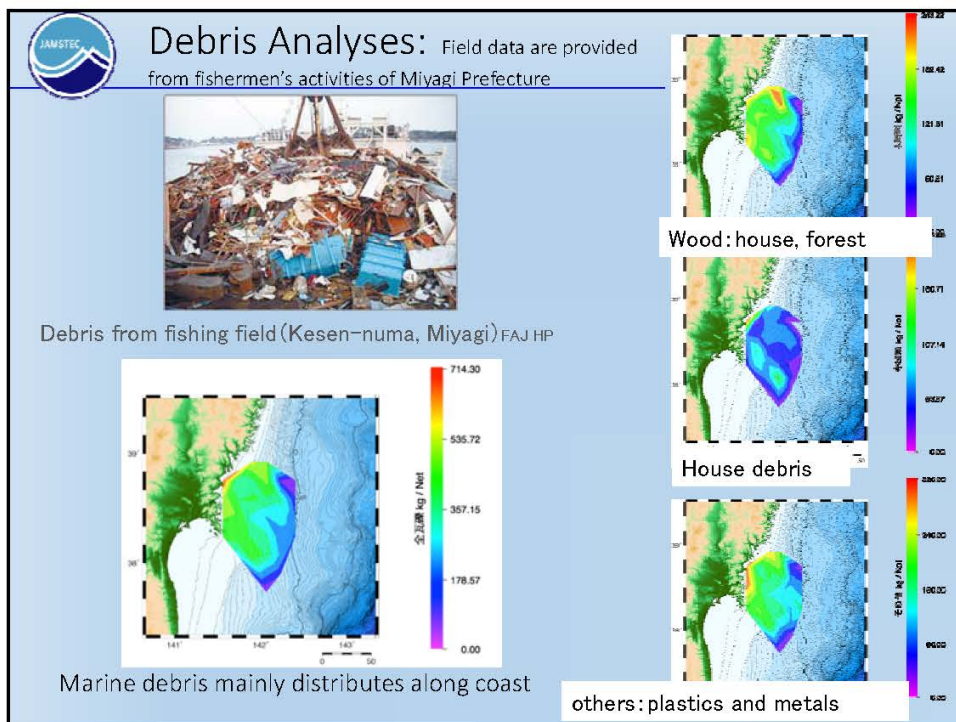












### Experiment for short term culture for high quality of gonad

Reduction of seaweed bed and forest in coastal area by sea urchin

How to Conserving of seaweed bed and forest

→strong collection of almost all sea urchin:  
hard work without any income

→artificial culture for high quality of gonad:  
if the experiment will be success, hard work but high income and conserving seaweed bed and forest.

The present condition of the rubble residual fishery of the southern Sendai bay

Sendai Bay

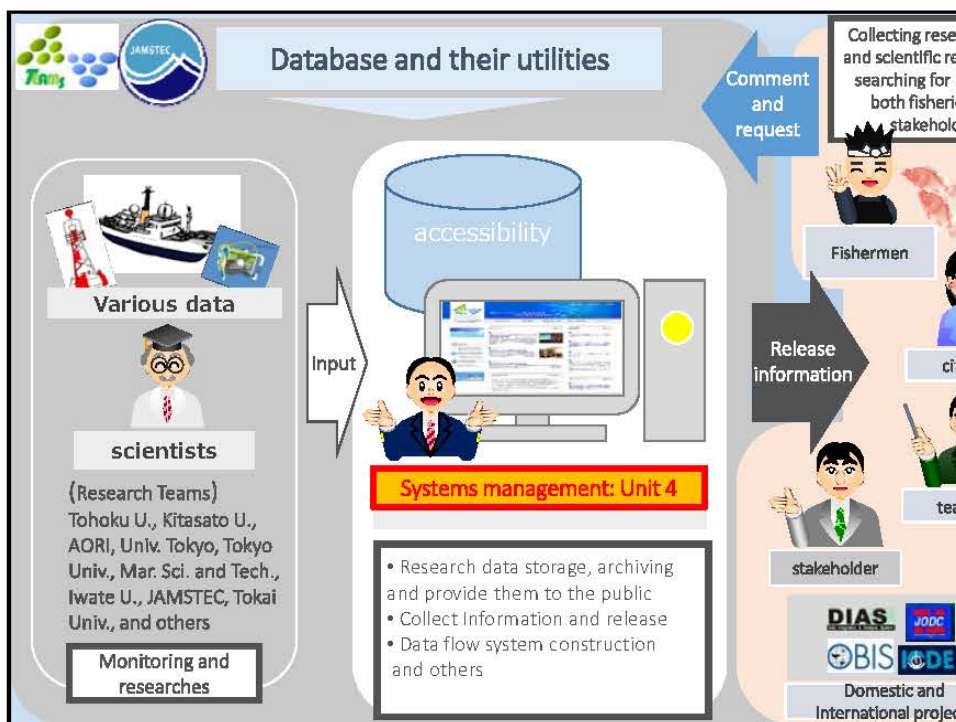
Fishing ground

Yamamoto Town

Map of the distribution of rubble

Broken Fishing gear for Surf clam

Rubble






23 March 2015

The UN World Conference on Disaster Risk Reduction (WCDRR) 2015 Sendai Japan (ID295)

**Tohoku Ecosystem-Associated Marine Sciences (TEAMS) Symposium**



# What is TEAMS

## How Did the Great East Japan Earthquake Affect Marine Ecosystem?

東日本大震災と沿岸漁業の復興—沿岸環境と生態系に与えた影響と漁業復興の例—

The Reconstruction of Fisheries based on Scientific Knowledge and Local Experiences

Akihiro KIJIMA (Tohoku Univ., Representative of TEAMS)

