

(For JSPS Fellow)

Form B-5

Date (日付)

29/06/2016 (Date/Month/Year: 日/月/年)**Activity Report -Science Dialogue Program-**

(サイエンス・ダイアログ事業 実施報告書)

- Fellow's name (講師氏名): Hungyen Chen (ID No. P15399)- Participating school (学校名): Fukui Prefectural Wakasa High School- Date (実施日時): 24/06/2016 (Date/Month/Year: 日/月/年)- Lecture title (講演題目): (in English) Introduction of statistical methods in marine biodiversity analysis.(in Japanese) none

- Lecture summary (講演概要): Please summary your lecture 200-500 words.

In this talk, I introduced my research of marine species diversity at global scales using statistical analyses. Global patterns of marine species diversity have been widely studied, including a cross-section of organisms ranging from phytoplankton and zooplankton to coral reefs, marine mammals, tuna, and sharks. The global decline of species diversity highlights the need for gaining a better understanding of the correlations between marine communities and the effects of climatic change and human activities in order to identify and develop conservation priorities.

Raw data obtained from experiment, observation, or field sampling are just figures and their biological meanings are difficult to be figured out. To translate those numbers into useful information, appropriate computation and analyzation are needed. Using some statistical methods and tools, the changes in data could be revealed among different times, spaces, of treatments. The last but the most important part is to present the result properly and make the phenomenon behind the data easy-understandable using sentences or figures.

In the end of the talk, I introduced the statistical tools, Excel and R, and demonstrate some applications to the data of marine communities. Statistics, or just data science, is necessary in not only all fields of research but also our daily lives. Especially in the age of huge data, data scientist could be an interesting choice for student who likes to become a researcher in the future.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 90 min (分), Q&A time (質疑応答時間) 30 min (分)

◆Lecture style (ex.: used projector, conducted experiments)

(講演方法 (例: プロジェクター使用による講演、実験・実習の有無など))

used projector, did not conduct experiment

- ◆ Interpretation (ex.: assistance by accompanied person, provided Japanese explanation by yourself) (通訳 (例: 同行者によるサポート、講師本人による日本語説明))

provided Japanese explanation by myself and teachers at the school

- ◆ Name and title of accompanied person (同行者 職・氏名)

none

- ◆ Other note worthy information (その他特筆すべき事項):

It was a very special experience to me. I like to do it again.

- Impressions and opinions from accompanied person (同行者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。):