

(For JSPS Fellow)

Form B-2
(FY2018)

Date (日付) 13 / 06 / 2018

(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): VERMEIREN Peter (ID No. P17405)
- Participating school (学校名): Kagawa Prefectural Takamatsu Sakurai High School
- Date (実施日時): 11 / 06 / 2018 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): The effects of microplastics on estuarine communities
- Name and title of your accompanying person (講義補助者 職・氏名)
Prof. Kou Ikejima
- Lecture format (講演形式):
 - ◆Lecture time (講演時間) 50 min (分), Q&A time (質疑応答時間) 25 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))
Lecture with projector. Small experiment simulating how microplastics move in the ocean (in 4 groups of 5-6 students)
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

The presence of plastic pieces smaller than 5mm (defined as microplastics) threatens ecosystems worldwide. Microplastics have been detected in freshwater, marine and terrestrial ecosystems from the equator to the poles. However, quantifying microplastics in the environment is difficult because no reliable methods are available. Consequently, we have only limited knowledge of the distribution patterns of microplastics in the environment, and the effects of microplastics on organisms. The research of Dr. Vermeiren and the team at Kochi University aims to improve current understanding of the distribution of microplastics in sediments of estuaries and the effects this has on the organisms that live there. Therefore, the researchers developed a standardized protocol to extract microplastics from the sediment based on the principle of density separation, followed by identification and quantification of microplastics using fluorescent coloring. Currently, the researchers are applying this method to sediments from different estuarine habitats and the crabs that live in them. Additionally, the researchers are studying the diet of crabs. This will allow the researchers to identify which crab species are most exposed to microplastics, and whether diet and habitat choice affects the exposure to microplastics.

- Overall advice or comments to future participants in the program (今後の講師へのアドバイス):

I would encourage everyone to participate. It is important for science to spread outside of the laboratory. The interaction with students gives a different view on my research topic.

- Other noteworthy information (その他特筆すべき事項):

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- Impressions and comments from the accompanying person (講義補助者の方から、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。)

講義補助者として同行し講義に参加しましたが、生徒に科学の面白さを知ってほしいという高校の先生の熱意がとてもよく感じられました。講義は授業後の時間を使って学生の自由(自主)参加で行われ参加学生は皆熱心に講義を聞いていました。また、英語や海外の文化に触れるという点でも、学生は興味を持ち、積極的に質問しており、講師の Vermerien 博士も楽しく講義している様子でした。

今回は隣接する県の高校からの依頼で、大学での研究活動を知ってもらう機会として、受入れ研究者の立場からも、とても良い機会であると感じました。