

(For JSPS Fellow)

Form B-5

Date (日付) 21/08/2016

(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): Hossain H.M. Zakir (ID No. P15029)
- Participating school (学校名): Yamanashi Prefectural Hikawa High School
- Date (実施日時): 25/07/2016 (Date/Month/Year: 日/月/年)
- **Lecture title** (講演題目): (in English) Geochemical characterization of sediments and sedimentary rocks from the Bengal Basin, Bangladesh
- (in Japanese) ベンガル盆地(バングラデシュ)の堆積物および堆積岩の地球化学的特徴

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

The distribution and source of sedimentary organic matter in the Bengal basin of Bangladesh is significant for understanding its biogeochemical cycle, which we determined the total organic carbon (TOC), total nitrogen (TN), and *n*-alkanes contents. Bulk C/N ratio (5.51 to 11.92, average 7.89) is attributed to the high inputs of organic matter from planktonic sources and an appreciable amounts of terrestrial derived organic matter. *n*-Alkane distributions from the Bengal basin sediment cores are characterized primarily by C₁₇ to C₃₅, with odd-over-even predominance suggest a diverse origin of organic matter. The odd long-chain *n*-alkanes from C₂₇ to C₃₃ with high peaks at C₂₉ and C₃₁ in the samples reflecting a terrigenous origin of organic matter. The average chain length (ACL), carbon preference index (CPI), P_{aq} and P_{wax} ratio values further suggested that major influence of organic matter from non-emergent aquatic macrophytes together significant proportions of grasses and herbs. Low Pr/Ph and Tm/Ts ratios in most section implying a more reducing to suboxic conditions prevailed during organic matter preservation in the oceanic event. Inorganic geochemical signatures suggest moderately weathered, felsic source with composition close to I-, and S-type granite, and UCC.

- Language used (使用言語): English

- Lecture format (講演形式): Power point presentation

◆Lecture time (講演時間) 60 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))

- ◆ **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))

Assistance by accompanied person

- ◆ **Name and title of accompanied person** (同行者 職・氏名) Yuta Isaji, Ph.D. student, Department of Ocean Floor Geoscience, AORI, The University of Tokyo.

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

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- **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。):

今回の講演者は英語のネイティブというわけではなかったのですが、生徒が英語を聞きとるのにかなり苦労している様子が伺えました。