

Form B-5

Date (日付)

20/09/12 (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): Julien LEGRAND (ID No. P11814)

- Participating school (学校名): Prefectural Kanagawa Sogo-Sangyo High School

- Date (実施日時): 13/09/12 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Paleofloras and environments in Japan during the Mesozoic period

(in Japanese) 日本における中生代のパレオフロラと古環境

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

The Mesozoic Period extended from around 250 Ma until its famous eventful termination 65 Ma ago when the dinosaurs extinct. At that time, the Earth showed quite a different face from the one we can see nowadays. One of the major geographical contrasts was the existence of an East-West oriented ocean at low latitudes, the Tethys Ocean, which separated clustered northern and southern continents. Southeastern Asia is composed of a series of small continental fragments (terranes) which have progressively separated from Gondwanaland, the southern continent, and assembled over the past 400 Ma by geological convergent plate tectonic processes. The climate, warmer and more equable than modern climate conditions, as well as the dispersal and evolution of floras and faunas of Asia are intimately linked with this geological evolution.

Fossil plants are varied and abundant in eastern Asia. Depending on the paleoclimate and environment, they can be latitudinally arranged as the Tetori-type, Ryoseki-type and Mixed-type floras. The most important change in biodiversity among plants during the Mesozoic period was caused by the rise of flowering plants (Angiosperms), which suffered a massive spread and diversification on the landmasses during the Early to mid-Cretaceous (about 110 Ma ago). They established their niche and expanded their distribution, influencing the whole floral and faunal kingdoms.

My research consists in studying paleofloristic and paleoecological changes in Japan and reconstruct paleoenvironments of the Mesozoic period, from the study of fossil spores and pollen grains (Paleopalynology). I also aim to find out the accurate time of Angiosperm apparition in Japan and its ecological impact, which is an important biological issue to be clarified because present biota, ecosystem and human life would not exist without flowering plants.

Keywords: Mesozoic ; fossil plants ; floristic changes ; Palynology ; Paleocology ; Evolution.

- Language used (使用言語): English / Japanese

- Lecture format (講演形式):

◆Lecture time (講演時間) 120 min (分), Q&A time (質疑応答時間) 60 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, used fossil material, conducted observations of spores and pollen grains under the light microscope

◆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))

lecture in English; provided Japanese explanation by myself

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

Prof. Harufumi NISHIDA

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

- 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。)

中学から高校へと進むにつれて、生徒の知識興味はより専門的に移行する反面、狭くなりがちでもある。JSPS の援助を受けている海外研究者の幅広い研究テーマを、科学全体の中での位置づけとともに紹介できるこのようなプログラムは高校生への知的刺激としてとても良いものだと思います。

高校側の設備として、プレゼンテーション用にはディスプレイよりも大型スクリーンへのプロジェクター投影の方が解り易いので、そのようなご指導も時には必要かと思われました。

全体として JSPS 担当者、現場の先生方、生徒の皆さんそれぞれ十分な対応や反応を戴き、感謝しております。

西田治文