PROGRAM

SATELLITE MEETING FOR MYRMECOLOGISTS AND VESPIDOLOGISTS AT MT. FUJI

August 4-6, 2002

Fuji Management Development Center
(FMDC)
Japan Federation of Employers' Associations
(Nikkeiren)
1400 Araya, Fuji Yoshida, Yamanashi Pref., 403-0006
Japan

Organized by
The Myrmecological Society of Japan
and
the World Association for the Study of Paper wasps in Japan (WASP-Japan)

SCHEDULE

August 4, Sunday

Travel from Sapporo to Fuji Yoshida

Starting at Sapporo (New Chitose Airport) in the morning and arriving at Haneda Airport, Tokyo (1.5 hour flight). A bus will be arranged at the airport to pick up the meeting participants. **The rendezvous for participants is "Meeting Point South" in Arrival Hall (1F) of Haneda Airport at 1:30pm.** The bus will depart at 2:00 p.m. and arrive at Fuji Yoshida in about 2.5 hour drive over expressways.

A participant can assure his/her life against traffic accident for 6.5 million yen at a premium of 500 yen through a procedure at the airport.

Symposium

The symposium titled "Ecological biogeography of Ants and Social Wasps" will be held after dinner. It is scheduled to start at 7:00pm and end at 9:30pm. Presentations and discussion are given in English. Details of this symposium are given on pages 5-7.

August 5, Monday

Excursion

8:50 Depart the venue (FMDC)

(Bus)

9:30 Arrive at the starting point (c. 2,500 m alt.) of trail up Mt. Fuji ;
Visit Komitake Shrine;
Walk to Oniwa and Lunch

12:00 Depart Mt. Fuji

(Bus)

13:00 Arrive at Aokigahara-Jukai;
Visit two volcanic gas caves: Fugaku-Fuketsu and Narusawa-Hyoketsu

14:00 Depart Narusawa-Hyoketsu

(Bus)

14:40 Arrive at a tofu (bean curd) seller, where participants can taste tofu made from underground water of Mt. Fuji

15:00 Arrive at Oshino-Hakkai (eight small fountains)

(Bus)

16:30 Arrive at FMDC

Banquet

Buffet style with a mixture of Japanese, Chinese and Western dishes

August 6, Tuesday

Return to Tokyo

The closing of the meeting after breakfast. Participants can return to Tokyo City Air Terminal (TCAT) in a chartered bus. TCAT is a terminal of limousine buses for Narita International Airport. If you like to see the sights, stopping over can be made in downtown area of Tokyo, where you can take a train to Narita Airport.

If you wish to reach the top of Mt. Fuji (3,776 m), you can stay longer at the venue. The trip to the top and back will take a whole day.

PAYMENT

Accomodation charges

	When shared	When used by single person
Standard room	4,200 yen	6,200 yen
Superior room	6,200 yen	9,500 yen

Capacity is 2 for all rooms; but when three persons stay in a room, the charges are 10% off for standard room and 4,200 yen per person for superior room.

Meals

Breakfast:	700 yen
Lunch:	900 yen
Dinner:	1,600 yen
Banquet:	5,000 yen, including the charge for drink

Vegetarian menu is available

You can pay by credit card (VISA and MASTER only) at the venue.

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If you have any question for this meeting,
please contact Keiichi Masuko or Yasuo Hagiwara at Congress Office.

Abstracts
Symposium "Ecological Biogeography of Ants and Social Wasps"
7:00 p.m.-9:30 p.m., August 4, Sunday

Introduction

Kazuo Ogata

Institute of Tropical Agriculture,

Kyushu University, Fukuoka 812-8581 Japan

Distribution data will provide one of the basic information for a study of social insects. We can find out a pattern in species or higher taxa based on those data. Such pattern would explain the divesity, hisitory or evolution of organisms. In the ants, for example, Bolton (1995) counted 9538 species from the world and also gave a summary of statistical data in zoogeographical regions. Although there are still many undescribed speices, we can extract some biogeographical patterns from the data.

In this satellite meeting, the presentations teat with something about the distributions of social insects. Since the geographical scale of the talks here ranges from microhabitat to regional level, we will see the various patterns of distributuions which would lead to a spatio-temporal view of organizm.

Vertical distribution of hornets in Taiwan

Jung-Tai Chao

Taiwan Forestry Research Institute, Taiwan

Forty-six bait traps were set from 188k (50m above sea level) to 113k (2,565m above sea level) of the Cross Island Highway in central Taiwan. A total of 2,593 social wasps were successfully trapped from 1,426 trapping in a period of

9 months. Among these trapped wasps, 84.5% (2,192/2,593) were hornets (*Vespa* spp.). *V. velutina* was the most abundant species, which accounted for 49% (1,075/2,192) of the trapped hornets. In addition, *V. velutina* was the most abundant species in low elevation (< 1,000 m) and mid elevation (1,000-2,000 m), and the second most abundant species in high elevation (> 2,000 m). Most number of *V. analis* (89%) and *V. basalis* (60%) was collected in mid elevation, while most number of *V. ducalis* (62%) was collected in low elevation. Ninety-four percent of the trapped *V. manderinia* came from traps in low and mid elevation. *V. wilemani* was obviously a dominant hornet species in high elevation.

Introduction of the nature of the Mt. Fuji, and the ants and wasps found on its northern slope

Yasuo Hagiwara
Dept. of Biology, Showa University, Japan

Mt. Fuji is the highest mountain in Japan. Many people like it because of its beauty and grandness. We can see many lava structures in there, so this mountain is volcano. People have utilized this mountain in life for a long time. Therefore Natural forest is on the decrease. I first introduce the nature of Mt. Fuji for excursion, next ants and wasps found on there.

Biogeography of North American seed-harvester ants: environmental effects on latitudinal and longitudinal patterns

Robert A. Johnson
Dept. of Biology, Arizona State University, U.S.A.

The southwestern United States has a large array of ecologically similar species of seed-harvester ants that appear to have similar habitat requirements. The primary difference between these species is their occurrence in specific micro- and macro-habitats. For example, several such species in the ant genus *Pogonomyrmex* display allopatric distribution patterns, with the species in the more xeric portion of the contact zone having a larger body size. Body size

also varies both intra- and inter-specifically on a latitudinal scale, with size increasing from the north to the south. These ants also display longitudinal patterns of species replacement. Summer rainfall, which triggers the mating flights for many species, decreases from eastern Arizona to southern California. As such, several species with rain-triggered mating flights drop out of the fauna in the drier western portions of these deserts, and are replaced by species in which mating flights are apparently triggered by photoperiod.

Ecological biogeography of Japanese ants: patterns of distribution, species density and ecological structure in relation to environmental gradients

Mamoru Terayama

Division of Agriculture and Agricultural Life Sciences,
The University of Tokyo, Japan

Japan is a very interesting country in biogeographical sense, especially in three points. Firstly, Japan extends over two zoogeographical regions, Palearctic and Oriental regions. Secondly, this country has several climates, from cool temperate to subtropical climates even the lowland. Finally, Japan is island country and composed of thousands of islands of various sizes, and this provides occasions for large scale natural experiments. Two hundred seventy-five species of ants belonging to the 55 genera of 8 subfamilies are distributed in Japan.

The areas of northern part of Japan and mountain regions of central Japan have many Palearctic species. In the subtropical areas such as the Nansei Islands, there are many Oriental and tropicopolitan species. At least 20% of the total species of ants in the subtropical areas are tramp species which have spread over the world along with the development of human transportation.

Species-area relationships demonstrated high species richness in Japan of the subtropical zone as compared with that of the temperate and the subarctic zones. Species and nest densities of ants in the subtropical rain forests and the warm-temperate evergreen forests were significantly higher than those in the temperate deciduous broad-leaves forests and the boreal evergreen coniferous forests. The densities of ants were the smallest in the boreal evergreen

coniferous forests among the natural forests in Japan.

In relation to the urbanization and ant communities, anthropogenic effect caused forest type soil dwelling species to disappear, and to decrease in the species and nest densities.