Charles H. Nelson, Department of Biological and Environmental Sciences, The University of Tennessee at Chattanooga, Chattanooga, TN 37403

After a postponement of this meeting for one year owing to the devastating effects of the tsunami, an air of anticipation and enthusiasm characterized the XVII International Symposium on Plecoptera and the XIII International Conference on Ephemeroptera, held June 3 – 9 in Wakayama, Honshu, Japan. Dominated by the beautiful Wakayama Castle on Mt. Torafu, the conference site meeting was located in the Big-Ai Convention center and excellent accommodations were provided by the Hotel Landmark located within the center. Sixty-four registrants from twenty countries attended two keynote addresses, seven oral presentation sessions and two poster presentations sessions. These sessions covered a diverse variety of subjects that included paleontology, biodiversity, distribution, ecology, life history, morphology, molecular data, phylogeny, taxonomy, and physiology.

Among the many highlights of the conference was a special event that included an exhibition of the ‘Wadiko’ Japanese Drum used in ceremonies in shrines and temples and an exciting demonstration of ‘karate’ martial art that originated in the Ryukyo (Okinawa) Islands in the 19th Century.

The mid-conference field trip to the Nye River and Dome Village was an opportunity for participants to collect as well as enjoy assisting school children in the field with collecting and conducting taxonomic identifications. A sumptuous barbeque at the Dome Village campsite was followed by a delightful evening viewing the luminescent flights of the Japanese aquatic firefly.

The Japanese restaurant, GANKO, was the site for a superb conference dinner with many courses that included a wide variety of sushi. Surrounded by lovely gardens, this former villa of a wealthy businessman was a delightful setting for this important occasion.

For those who could not get enough of the beautiful Japanese countryside our hosts conducted a post-conference trip to the home of the naturalist, Kumagusu Minakata, that also included some hiking along the UNESCO World Heritage Site ‘Kumano-Kodo’ pilgrimage route and a visit to the Kumano Hongu Taisha Shrine.

The conference participants certainly express our appreciation to the Organizing Committee for their commendable efforts that went into making the conference a great success: Yasuhiro Takemon, Kyoto University (chairperson); Mayumi Yoshimura, Forestry and Forest Products Research Institute (secretary-general); Koji Tojo, Shinshu University (vice-chairperson); Yu Isobe, Nara Bunka Women’s College (gifts), Akikazu
Taira, Osaka Prefecture University (accompanying person program, post conference trip); Soichiro Mukaiyama, Toyonaka City (event); Shigekazu Uchida, Aichi University of Industrial Technology (sponsors); Kazuhisa Inada, Himeji High School (logo) and Toru Kishimoto, Toshihito Fujitani, Takao Shimizu.

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**PROGRAM**

**Meeting Schedule**

**Sunday, June 3**

18:00-21:00 Registration of participants at the Hotel Landmark

**Social Event**

19:00-20:00 Welcome refreshments and drinks at the Hotel Landmark

**Monday, June 4**

9:00-10:00 Registration

**Opening Ceremony**

10:00-10:15 Opening and welcome address by Yasuhiro Takemon (Conference Chairperson)

10:15-10:25 Welcome address from the Governor of Wakayama Prefecture

10:25-10:35 Welcome address from the Mayor of Wakawama City

10:35-10:55 Opening and welcome address from Michel Sartori and John Brittain (International Committee Chairs)

**Keynote Address I**

11:00 -12:00 Tokeshi, M

*Comparative biodiversity of Ephemeroptera and Plecoptera from Asian to global perspectives*

12:00-12:15 Conference picture

12:14-14:10 Noon recess

**Oral Presentation I: Past-Present-Future (Chair: J. Brittain)**

14:10-14:30 Alba-Tercedor, J., J. M. Poquet, R. Rodríguez-López

*Predicting the effect of global warming on mayfly and stonefly families in the Iberian Mediterranean area of Spain*

14:30-14:50 Bojková, J., T. Soldán, S. Zahrádková

*Plecoptera taxocenoses and degredation of watercourses in the Czech Republic: changes after 50 years*
14:50-15:40 Coffee break

15:40-16:00 Godunko, R. J., A. H. Staniczek
Revision of fossil Metretopodidae (Insecta: Ephemeroptera) in Baltic amber

16:00-16:20 Tojo, K.
Evolutionary origin of the insect wing: Approach from Ephemeropteran embryology

Special Event

17:30-19:00 Presentation of ‘Wadaiko’ Japanese Drum
Presentation of ‘Karate’ martial art

Tuesday, June 5

Keynote Address II

9:30-10:30 Tanida, K
Historical overviews of aquatic entomologists and insects in Japan

10:30-11:00 Coffee break

Oral Presentation II: Biodiversity, Distribution, Faunistics (Chair: T. Soldan)

11:00-11:20 Sartori, M., J. L. Gattolliat, M. T. Monaghan
Origin, diversification and the future of Macaronesian mayflies (Ephemeroptera)

11:20-11:40 Bolortsetseg, E., B. Badamdorj
The Mayfly (Ephemeroptera) studies of streams, rivers, and lakes of Mongol Altai Mountain

11:40-12:00 Nelson, C.
Log-series statistical distribution in Plecoptera classification

12:00-14:00 Noon recess

Oral Presentation III: Ecology, Morphology, Physiology (Chair: P. Zwick)

14:00-14:20 Sekine, K., K. Tojo
The origin and expansion of unisexual populations in the geographically parthenogenetic mayfly Ephoron shigae (Polymitarcyidae)

14:20-14:40 Barber-James, H. M., F. C. de Moor
A scanning Electron Microscopy study of mating adaptations in the Prosoptistomatidae (Ephemeroptera)
14:40-15:00  Sato, H., Y. Degawa  
Not gills, but fungi: Harpellales, a fungal order inhabiting the gut of aquatic insects

15:00-15:30  Coffee break

15:30-15:50  Conference site proposals

Poster Session I: Phylogeny, Systematics, Taxonomy

15:50-17:30  Zrelli, S., M. Boumaiza, M. Bejaoui, J. L., Gattolliat, M. Sartori  
New data and revision of the Ephemeroptera of Tunisia

Lecci, L. S., C. G. Froehlich, P. C. Bispo  
Phylogenetic analysis of the genus Gripoteryx (Pictet 1841) (Plecoptera: Gripopterygidae), based on morphology

Ishiwata, S.  
Revision of the genus Drunella (Insecta: Ephemeroptera: Ephemerellidae) from Japan

Yoshinari, G., M. Nakamura, S. Uchida  
A new species of Togoperla (Perlidae) from Japan

Salles, F. F., Y. Shimano, E. D. G. Soares, L. R. R. Faria  
Revision of Oligoneuria Pictet (Ephemeroptera: Oligoneuridae)

Zhou, C. F.  
The nymph of Gilliesia pulchra Zhou (Ephemeroptera: Leptophlebiidae)

Gattolliat, J. L., L. Vuataz, M. Sartori  
Mayfly fauna of Jordan: relevance of a barcoding gene for the association of ontogenetic stages

Boumans, L.  
DNA barcoding of Norwegian stoneflies and of heptageniid mayflies

Vuataz, L., M. Sartori, A. Wagner, M. T. Monaghan  
Toward a revised taxonomy of Alpine Rhithrogena (Ephemeroptera: Heptageniidae): the utility of a barcode gene

Kato, Y., K. Tojo  
Molecular phylogenetics of East Asian Yoraperla stoneflies (Plecoptera, Peltoperlidae)

Kato Y., K. Tojo  
Molecular phylogenetic relationships of East Asian Cryptoperla stoneflies (Plecoptera, Peltoperlidae)
Takenaka, M., K. Tojo
Genetic structures of dipteromimid mayflies endemic to Japan (Ephemeroptera, Dipteromimidae)

Saito, R., K. Tojo
Genetic structures of the isonychiid mayfly Isonychia japonica (Ephemeroptera, Isonychiidae)

Morii, Y., M. Yoshii, T. Kishimoto, K. Tojo
Molecular biogeography of the scopurid stoneflies (Plecoptera, Scopuridae)

Maracci, S., N. Vuilleumier, M. Sartori
Aqualogue: an original scheme to record aquatic insect biodiversity

Kobayashi, S., Y. Takemon
Longitudinal patterns in taxonomic richness of Ephemeroptera and Plecoptera in a Japanese River

Wednesday, June 6

Mid-Conference Trip to the Nye River and Dome Village

Thursday, June 7

Oral Presentation IV: Ecology, Life History, Biology (Chair: Y. Takemon)

9:30-9:50 Pereira-da-Conceicoa, L. L., H. M. Barber-James
A preliminary investigation of the diversity of Teloganodidae (Ephemeroptera) in South African rivers

Life in the dark: on the biology of the cavernicolous stonefly Protonemura gevi (Insecta: Plecoptera)

10:10-10:30 Hitchings, T.
Life in turbulent water for Deleatidium (Ephemeroptera: Leptophlebiidae) from New Zealand

10:30-10:50 Boumans, L.
Incipient speciation: a distinct local population of Leuctra hippocus (Plecoptera) in Norway

10:50-11:20 Coffee break

11:20-11:40 Morii, Y., M. Yoshii, T. Kishimoto, K. Tojo
Differences of eclosion pattern between two closely related scopurid stoneflies (Plecoptera, Scopuridae)
11:40-12:00 Ban, Y., T. Mita, M. Ishikawa
*Inspection of patchy emergence of mass-emerging mayfly, Ephoron shigae Takahashi (Ephemeroptera, Polymitarcyidae) from larvae side*

12:00-12:20 Saltveit, S.J., J.E. Brittain
*Life cycle strategies in contrasting populations of the stonefly, Amphinemura standfussi (Plecoptera, Nemouridae)*

12:20-14:00 Noon recess

**Oral Presentation V: Ecology (Chair: M. Sartori)**

14:00-14:20 Avlyush, S., M. Schaeffer, D. Borchardt
*Life cycles and secondary production of mayflies (Ephemeroptera) in the Kharaa River, Mongolia*

14:20-14:40 Manko, P.
*Microdistribution patterns of stonefly nymphs in small flysch river (Eastern Carpathians, Slovakia)*

14:40-15:00 Ozolins, D.
*Microhabitat preference of different mayfly larvae instars in medium sized lowland stream in Latvia*

15:00-15:30 Coffee break

**General Shows**

15:30-15:45 Yoshimura, M.
*Slide show of Mid-Conference trip*

15:45-16:15 Alba-Tercedor, J. (use anaglyph glasses)
*Micro-computer tomography analysis techniques applied to mayflies, with a detailed study of the anatomy of the nymph of Prosoptistoma pennigerum (Müller, 1785)*

**Poster session II: Morphology, Ecology, Life History, Physiology, Technical Information**

16:15-18:00

Bolortsetseg, E., J. Morse, B. Badamdorj
*A gynander subimago Baetis sp. (Ephemeroptera, Baetidae) from Mongolia*

Sekine, K., K. Tojo
*The origin and expansion of unisexual populations in the geographically parthenogenetic mayfly Ephoron shigae (Polymitarcyidae)*

Helland, N. K. S., J. E. Brittain
*Distribution of Plecoptera, Ephemeroptera and Trichoptera in*
a Norwegian mountain stream system in relation to environmental variables

López-Rodríguez, M. J., C. E. Trenzado, J. M. Tierno de Figueroa, A. Sanz
Digestive enzyme activity and trophic behavior in two predator aquatic insects (Plecoptera, Perlidae). A comparative study

Tierno de Figueroa, J. M., M. J. López-Rodríguez, T. Bo, S. Fenoglio
Life cycle and nymphal feeding of three high mountain Alpine macroinvertebrate species (Plecoptera and Ephemeroptera)

Koščo, J., P. Manko
The diet composition of Perla marginata larvae (Plecoptera: Perlidae) in a Eastern Carpathian flysch river

Wagner, A., M. Sartori
Ontogeny of tarsal claws in selected mayfly species (Ephemeroptera)

Ogany, Y.
Comparative morphology of the epiproct in Japanese Stavsolus (Plecoptera: Perlodidae)

Loskutova, O., L. Zhiltzova
Wing and body size polymorphism in population Arcynopteryx compacta McL. (Plecoptera: Perlodidae) in the Ural Mountains (Russia)

Takemon, Y.
Diversity of the reproductive behavior in mayflies

Luzón-Ortega, J. M., M. J. López-Rodríguez, J. M. Tierno de Figueroa
Description of the drumming signal of Eoperla ochracea (Kolbe, 1885) (Plecoptera: Perlidae)

Mori, Y., M. Yoshii, T. Kishimoto, K. Tojo
The parapatric distribution pattern derived from reproductive interference between two closely related scopurid stoneflies (Plecoptera, Scopuridae)

Grant, P., M. Walters, C. Wright
The life cycle and substrate preference of Cercobrachys etowah Soldan (Ephemeroptera: Caenidae) inhabiting a sandy bottom stream

Yoshimura, M.
Preference of tree types in adult Kamimuria tibialis (Plecoptera, Perlidae)

Kitchen, L., B. Peacock, C. Macadam
The Anglers’ Monitoring Initiative – public engagement and river quality monitoring
Lu, C. T., H. M. Lee, C. M. Linn, D. J. Wei, C. F. Tang  
A study of Forciomyia taiwana (biting midge) repellent

J. Alba-Tercedor  
Studying the anatomy of wet specimens of mayflies of the genus *Baetis*  
(Insecta: Ephemeroptera) by scanning them into a liquid with the  
Skyscan 1172 high resolution micro-CT

**Auction**

18:00  Closing of silent auction

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*Friday, June 8*

**Oral Presentation VI: Systematics, Taxonomy, Biogeography (Chair: A. Staniczek)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presenters</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30-9:50</td>
<td>Salles, F. F., E. Soares, R. Hott</td>
<td>Current knowledge of Brazilian Baetidae (Ephemeroptera)</td>
</tr>
<tr>
<td>9:50-10:10</td>
<td>Gattolliat, H.</td>
<td>Biogeography of the Baetidae in South-East Asia: a generic and specific perspective</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>Naranjo López, C., J. G. Peters</td>
<td>Mayflies (Ephemeroptera) of the Greater Antilles, with new records for Jamaica and the Dominican Republic</td>
</tr>
<tr>
<td>10:30-10:50</td>
<td>Soldán, T., R. J. Godunko, P. Sroka, J. Bojková</td>
<td>Mayfly (Ephemeroptera) species inventory of the Caucasus Mountains</td>
</tr>
<tr>
<td>10:50-11:20</td>
<td>Coffee break</td>
<td></td>
</tr>
</tbody>
</table>

**Poster Prize**

12:00  Closing of ballots for poster prize

12:00-13:40  Noon recess

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**Oral Presentation VII: Systematics, Taxonomy, Biogeography (Chair: C. Nelson)**
13:40-14:00  Zhou, C.F.
The nymph of *Gilliesia pulchra* Zhou (Ephemeroptera: Leptophlebiidae)

14:00-14:20  Surenkhorloo, P.
*Contribution to the East Palearctic and Nearctic species of Mesocapnia* Raušer, 1968 (Plecoptera: Capniidae)

14:20-14:40  Macadam, C., L. Kitchen, M. Dobson
*Ephemeroptera in the UK: a national approach to monitoring and conservation management*

14:50-15:10  Coffee break

**Concluding Remarks**

15:10-16:10  Takemon, Y.
*Biodiversity patterns and processes revisited from Asia*

**Social Event**

18:00-21:00  Conference Dinner at GANKO Japanese Restaurant

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**Saturday, June 9**

**Post-Conference Trip to Southern Wakayama**
Otherwise than noted, photographs courtesy of Charles Nelson.

Wakayama Castle overlooking Wakayama, Japan.

Yasuhiro Takemon convenor of the 2012 Meeting.
Shigekazu Uchida and Purevdorj Surenkhorloo discussing Palearctic stoneflies.

Manuel Tierno de Figueroa and Manuel Jesús López-Rodríguez reflecting on Iberian stoneflies.
Dr. Peter Zwick and Lucas Lecci collecting at the Nye River.

The master at work, Dr. Peter Zwick.
Participants and school children at the Dome Village.

Participants at the Conference Dinner held at GANKO.
Conference participants trying traditional Japanese drumming.
Photograph, courtesy John Brittain

Lifetime Achievement Award Recipients Drs. John Brittain, Yu Isobe and John Hanson (not pictured) with presenters Prof. Peter Zwick (for Isobe) and Dr. Charles Nelson (for Dr. John Hanson, see Perla 30).