

Preface: Welcome to Texas and Introduction to Desert Technology 11 (DT 11) International Conference

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Over two years ago, Desert Technology 10 (DT 10) was successfully held in Narita, Japan in May 2011 (Table 1). At that venue, 142 participants from 29 countries convened to address many important issues related to desert environments. For the first time, DT10 was also held as the 1st International Conference on Arid Land (ICAL1). This offered an opportunity for interdisciplinary discussion among fields of research including natural, technological, human, and social sciences aimed at mitigating desertification. Since that time, the issue of global climate change has become even more critical. As world population continues to grow, climate-related challenges will become increasingly important to address using sound science and technology. Countries and cities located in arid regions will particularly need solutions to problems related to desertification. Accordingly, studies on desert and arid lands will be of continued importance in formulating such solutions.

Table 1. Chronological list of the Previous Desert Technology (DT) Conferences.

Conference	Month/Year	Site (Country)	Conference Chair (Affiliation)
1st	August 1991	Santa Barbara, California (USA)	Kenneth E. Foster (University of Arizona)
2nd	December 1993	Kona, Hawaii (USA)	Isao Endo (RIKEN)
3rd	October 1995	Fuji-motosuko (Japan)	Toshinori Kojima (Seikei University)
4th	September 1997	Kalgoorlie (Australia)	Adrian R. Williams (Curtin University of Technology)
5th	October 1999	Reno, Nevada (USA)	James A. Young (USDA, ARS)
6th	September 2001	Urumqi (China)	Xuncheng Xia (Xinjiang Institute of Ecology and Geography)
7th	November 2003	Jodhpur (India)	Sanjay Kumar (B.R.A. Bihar University)
8th	November 2005	Nasu (Japan)	Yukuo Abe (University of Tsukuba)
9th	November 2008	Douz (Tunisia)	Moncef Harrabi (National Institute of Agronomy of Tunis)
10 th (also first ICAL— International Conference on Arid Land)	May 2011	Narita (Japan)	Hiromichi Toyoda (Tokyo University of Agriculture)

Conferences on Desert Technology have been held 10 times since 1990 (Table 1), addressing many important issues related to deserts and desertification. Although the conferences have been a great source of learning and information for many international scientists, much more work is needed to address the critical issues related to life in arid regions of the world. The DT conferences welcome researchers who investigate deserts and arid regions from diverse aspects of sciences, including natural science and the humanities. The last DT conference to be held in the U.S. was in Reno, Nevada in 1999.

San Antonio was chosen as the site for DT11 because it is a city that welcomes guests and is located in an area where water is a major issue. The state of Texas has 11 ecological zones, most of which face serious issues related to water. A significant portion of west Texas is occupied by the vast Chihuahuan Desert which occupies about 363,000 km² across 3 states and 2 countries. Drought conditions are common and expected in this region. But many other portions of the state of Texas also face serious challenges related to water and aridity. Indeed most of the state has been affected by severe drought during the past several years. Agriculture is an important component of the Texas economy which is seriously affected by drought and water shortages. In addition, many urban areas face significant water restrictions which are becoming more critical every year. Thus many of the papers from this conference are of direct relevance to the host state.

In this conference, there were over 100 participants with author/co-authors representing 28 countries, contributing 52 oral presentations and 38 poster presentations. This included a significant number of first time participants. The venue provided an opportunity to renew friendships and create new professional relationships. We also hope the conference provided an opportunity for invigorating the mind thereby bolstering our ability to address desert issues in the future. During the conference, plans were further developed for DT 12 which is to be held in Egypt in 2015 with Prof. H. El-Shemy as Conference Chair. Further, announcements and invitations were made for the 2nd International Conference of Arid Lands Study (ICAL2) to be held in Tashkent, Uzbekistan in 2014, with Dr. Kristina Toderich serving as conference chair. India was identified as the host country for DT 13 to be held in 2017, with Prof. S. Sinha serving as conference chair.

We would like to thank all DT 11 participants and we would especially like to extend our appreciation to all sponsors (Table 2) who provided important financial support. We express gratitude to the Japanese Association for Arid Land Studies which has continually fostered participation in the DT conferences. Indeed, Japanese scientists presented more papers at DT 11 than any other country, including the host country, U.S.

Table 2. Sponsors of DT 11.

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- Borlaug Institute for International Agriculture, Texas A&M University
 - Dryland Systems Research Program, Consultative Group for International Agricultural Research, ICARDA
 - Japanese Association for Arid Land Studies
 - Texas A&M AgriLife Research, Texas A&M University System
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Special appreciation is expressed to Valerie Weber, Conference Coordinator, of Texas AgriLife Conference Services who did an outstanding job with logistics. Carmen Byce and Gabriel Saldana of the Borlaug Institute for International Agriculture also played important logistical roles in helping make the conference a success.

The International Advisory Board members, who helped provide direction and suggestions regarding this conference were: T. Kojima (Japan), H. Toyoda (Japan), T. Morio (Japan), T. Nakamura (Japan), Y. Abe (Japan), R. Harper (Australia), H.S. Gehlot (India), S. Kumar (India), S. Sinha (India), M. Harrabi (Tunisia), K. N. Toderich (Uzbekistan), H.A. El-Shemy (Egypt), M. M. Abu-Zreig (Jordan), R. Misak (Kuwait), D. Leskovar (USA), and A. Michelsen (USA). This group also served as members of the Editorial Board (Table 3) for this special issue of *Journal of Arid Land Studies*. Their efforts in helping make the conference a success are gratefully acknowledged.

We are also grateful for the local organizing committee members who provided support and suggestions regarding conference logistics.

Local Organizing Committee members were: Raul Cabrera (Uvalde), Catherine Clement (College Station), Bryan Davis (San Antonio), Monty Dozier (Bryan), Daniel Leskovar (Uvalde), Ari Michelson (El Paso), and Bob Stewart (Canyon). Committee members Cabrera, Clement, Dozier, and Stewart also served on our Editorial Board (Table 3), which is greatly appreciated. We thank Matthew Driffill of the San Antonio Water Authority and Ann Gabriel and Calvin Finch of the Water Conservation and Technology Center, who hosted post-conference tours.

The proceedings of the conference are being published as a special issue of *Journal of Arid Land Studies*. Each manuscript was peer-reviewed by at least two persons. We thank the Editorial Board and many ad hoc reviewers who took time to provide editorial recommendations regarding the manuscripts.

Table 3. Editorial Board members for DT 11.

Y. Abe (Japan)	M. Abu-Zreig (Jordan)	R. Cabrera (USA)
C. Clement (USA)	T. Davis (USA)	M. Dozier (USA)
H. El-Shemy (Egypt)	H.S. Gehlot (India)	M. Harrabi (Tunisia)
R. Harper (Australia)	T. Kojima (Japan)	S. Kumar (India)
D. Leskovar (USA)	J. Mexal (USA)	A. Michelsen (USA)
R. Misak (Kuwait)	T. Morio (Japan)	T. Nakamura (Japan)
A. Nefzaoui (Tunisia)	G. Niu (USA)	W. Payne (Ethiopia)
K. Toderich (Uzbekistan)	H. Toyoda (Japan)	S. Sinha (India)
B. Stewart (USA)	S. Van Pelt (USA)	K. Yoshikawa (Japan)
