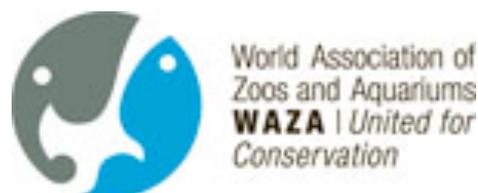


Zoos and Zoo Associations helping Japanese Zoos and Aquariums in a Terrible Crisis ... from a collection of emails

Surely anyone with a heart for animal and man was deeply touched when they came to realize the severity and scope of the Tsunami that hit Japan last in April. Some newspapers and channels announced that some zoos had been very badly hit. I did not hear it from them; I heard it from a friend (Dr. Kanako) who is Japanese and deeply associated with JAZA, the Japanese Association of Zoos and Aquariums. I had just written her an email about some trivial matter (compared to a Tsunami) and she actually replied with the information I wanted but wrote, very politely as is the custom of the Japanese, that she was "a little busy" with the Japanese Zoos and Aquariums that had been severely damaged.

Before I could turn on television, I received an email from Dr. Gerald Dick, Executive Director of the World Association of Zoos and Aquariums WAZA who had picked up the news and was writing to ask Council Members what they thought of WAZA launching a fundraising campaign to help our colleagues and their animal charges in affected Japanese zoos and aquariums. An unqualified reply of "YES" from all and he had it organized and up on the WAZA website. In a day or two JAZA put up a similar campaign on their Association Website and also began collecting donations as the situation was dire, particularly for some animals. Zoos from all over the world contributed some amount including some of the zoos from South Asia. WAZA has included a project in its Corporate Vision 2020 to establish global emergency support for member institutions that have been affected by natural disasters. The criteria and parameters of this project have not been established as yet but that did not deter WAZA Council from stepping up to the plate to assist during this tragic event. The WAZA Executive Office quickly put an appeal on their website and got the word to members all over the world

Mr. Shigeyuki Yamamoto, Chair of JAZA kept in touch with zoos around the world with reports of damage and progress, despite how busy he was in dealing with various crises. He soon related that JAZA had a few reports from their member institutions about



Fukushima Aquarium after the Tsunami. Note damage in rectangle.

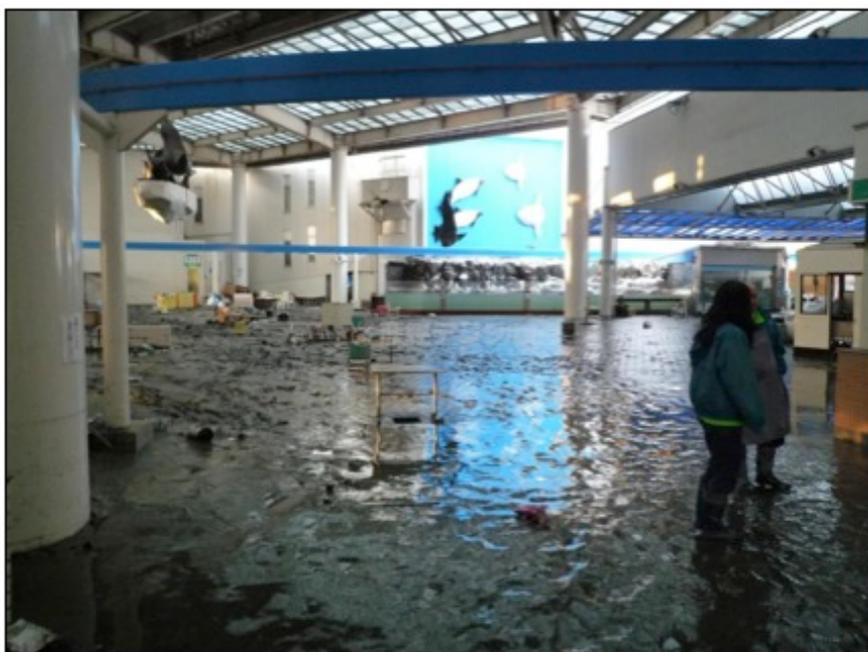


Fukushima aquarium was flooded to the second floor. All the staff were evacuated at third floor. Life support system broke down and fishes died but marine mammals are still alive.

damage of the 9.0 earthquake and tsunami. At that time there were reports of animals stranded in flooded enclosures and wreckage of facilities. The Japanese Zoo Association members cooperated with one another to provide immediate help ... food, medicines, material needed to

evacuate the animals. The remainder of this feature article has been taken from communications from Mr. Yamamoto.

Around 14 April JAZA updated the bad news on their official Facebook page and also related their appreciation of



Marinepia Matsushima Aquarium. After the tsunami everything had become so dirty from the clay, it was such hard work for the staff to clean everything.



Yet, they finished and re-opened the doors last month. The first day of reopening at Marinepia Matsushima Aquarium brought many happy visitors.

the sympathy received. Their first ground truth was from the northern part of their country where there was enormous damage. In contacting their member zoos they learned that many aquariums in the Tohoku area were badly damaged. Since power was out and the country was in chaos it was difficult to get information...that was the first big challenge and there were more to come. Many zoos were in localities where their "lifeline" was not available to them, e.g., daily infrastructure equipment included energy facility, water supply facility, traffic facility or communication facility.

After some more days Mr. Yamamoto announced that 14 JAZA zoos and aquariums were damaged, worst cases nearby the locality where the nuclear facilities were located. He reported that the "Aquamarine Fukushima and Marinepia Matsushima Aquarium had the worst damage -- structural, electrical, and environmental. Also it was impossible to supply basic necessities like food, water, power etc. for the animals. The Association got transfer permission from their Ministry of Environment under the Act for Conservation of Endangered Species of Wild Fauna and Flora of all live species

including Walrus (*Odobenus rosmarus*), Steller Sea Lion (*Eumetopias jubatus*), Eurasian otter (*Lutra lutra*), Common Murre (*Uria aalge*), and the Tufted Puffin (*Fratercula cirrhata*). These animals were moved from Aquamarine Fukushima by March 17th and also had transferred food to the affected zoos. Details of affected zoos are in Box 1.

By March 18 support to zoos included

- Transfer of feed and materials to Yagiyama Zoo, Akita Omoriyama Zoo, and Morioka Zoo.
- Immediate protection of animals - marine mammals and birds in Aquamarine Fukushima were transferred to Kamogawa Sea World, Ueno Zoo, Kasai Sea Life Park, Enoshima Aquarium, Izu Mito Sea Paradise.
- Establishment of the donation system for affected area and affected institutions
- Enhancement of information sharing inside and outside of Japan on website and Facebook.
- Ongoing Support and Future Plans
 - Comprehending the details of damage
 - Planning transfer of the required feed and materials continuously
 - Planning of the appropriate physical support damage, and urgent protection of animals

On April 20, 2011 the Association held the first JAZA meeting for the zoos and aquariums affected by Tohoku Earthquake at Yagiyama Zoological Park in Sendai, Miyagi. The affected institutions mentioned above joined together and exchanged opinions about restoration and reintegration, and the expectation to JAZA association. On 24 April the second JAZA meeting for facilities affected by Tohoku Earthquake was held at Kamine Zoo on April 24, 2011. The affected institutions attending this meeting were Hitachi City Kamine Zoo, Kiryugaoka Zoo, Aquamarine Fukushima and Ibaraki Prefectural Oarai Aquarium.

Shortly afterwards the JAZA Annual Conference took place in Okinawa and all of the Directors from 153 JAZA member institutions attended. JAZA administration shared the latest information in affected area and exchanged opinions for the restoration and reintegration of affected institution.

Box 1: Facilities Damaged (as of March 14, 2011)

Zoos:

Akita Omoriyama Zoo (Akita, Akita) -- no damage on enclosures but difficulty for crucial supplies such as feed and also due to blackout.

Morioka Zoological Park (Morioka, Iwate) - no damage on enclosures and animals but without power and water so difficult to get fuel and food.

Yagiyama Zoological Park (Sendai, Miyagi) – No animal injuries or deaths. Buildings and parking lot need repair. Difficulty getting lifeline and feed.

Nasu Animal Kingdom (Nasu, Tochigi) - damage on its hot spring facility and need to close temporarily.

Kiryugaoka Zoo (Kiryu, Gunma) – cracks /damage on zoo pathways; glass of office buildings broken

Hitachi City Kamine Zoo (Hitachi, Ibaraki)- blackout without water insufficient food; temporarily closed but no damage on infrastructure and animals.

Tobu Zoological Park (Minamisaitama, Saitama - no damage on animal facilities

Aquariums:

Chitose Salmon Museum (Chitose, Hokkaido)- some facilities damaged and fish killed.

Aomori Prefectural Asamushi Aquarium (Aomori, Aomori) – temporary blackout

Oga Aquarium GAO (Ojika, Akita) - blackout.

Marinepia Matsushima Aquarium (Miyagi, Miyagi) – severe damage; floors flooded by tsunami; machine and electric room submerged but staff and animals are fine. In-house power generation.

Aquamarine Fukushima (Iwaki, Fukushima)

No human casualties including staff, volunteers, vendors, visitors in facility when tsunami hit. First floor of facility flooded & underground installation and electric system damaged. Massive damage on animals. Living animals transferred to Ueno zoo (Tokyo) and Kamogawa Sea World (Kamogawa, Chiba). All aquarium owned vehicles unusable due to damage.

Ibaraki Prefectural Oarai Aquarium (Higashiibaraki, Ibaraki) under blackout, but have in-house power generation; 4 parts of plumbing system broken. A part of parking lot is completely flooded. Staff are ok.

Epson Aqua Stadium (Tokyo) - no human casualties; part of artificial rocks in the tube tank was broken.

As of now donations for JAZA zoos affected by the disaster was (about USD US\$ 65,465 as of May 20). JAZA announced it would continue to ask for donations until June 30 and in July they would distribute it suitably, establishing a committee to decide the intended application, criteria, time, and method of distribution for the affected zoos and aquariums will receive the donation and JAZA will continue to support them to go to the next stage.

The donor's names and total amount can be seen on the public website of WAZA: <http://www.waza.org/en/site/get-involved/donate-for-japan>. On the site there is also a booklet of photos and captions telling what happened after the Tsunami. It is still possible to make a donation and still a need. Listed all donors till date here also.

Thanks to all donors. It is wonderful the ways the zoos, zoo associations and zoo personnel of the world came to the aid of a country in times of disaster.

Donor list up to 9 June.

Achtel Cornelia, **ACOPA ZOA** Rafael Torres, **American Association for Zoos educators**, **Armer** Joan, **Arno** Claudia, **Bayley** Robert, **Beall** Frederick, **Connecticut's Beardsley Zoo**, **Bergen Aquarium Norway**, **Boehm** Michael, **Boyd** Janice, **Brinly** Nancy, **Buren** Joseph, **Carina** Johann, **Carter** Kelsey, **Caserna** Sharon, **Cash** Jocelyn, **Castillo** Jennifer, **Canadian Association of Zoos and Aquariums**, **Cheng** Wai Ki Rebecca, **Chester Zoo**, **Chow Poh** Soon,

Christy Matthew, **Clements** Lynn, **Cloak** Connie, **Costelow** Stephanie, **Czipczer** Attila, **Dadone** Liza, **Dadone** Ronnie, **Dallas World Aquarium**, **Decelle Diomande** Sophie, **Deroual** Benoît, **Dick** Gerald, **Dixon** Kim, **Dunn** Courtney, **Dupree** Eva, **Dutton** Lisa, **Eaton** Gail, **Edberg** Sunna, **Ehmke** Lee, **Faust** Kate, **Fowler** Diana & John, **Gamp** Monica, **Gaffney** Haley, **Garries** Brent, **Gee** Kathy, **Graham** Amber, **Guaracini** Sarah, **Hajduchová** Jana, **Hankins** Megan, **Hays** Cheryl, **Holtman** Leslie, **Hunt** Holly, **Hunt** RB, **ISIS** (International Species Information System), **Jacksonville Zoological Society**, **Jacobs** Nydia, **Karabec** Pavel, **Kolmardens Djurpark**, **Kim** Koryu, **Kishaba** Amy, **Koplish** Sara, **Krueger** Valerie, **Kuklova** Marcela, **Lacy** Robert, **Lafler** Mary Lou, **Lind** Meredith, **Lion Country Safari**, **Long** Sarah, **Loro Parque**, **Low** Kim Wah, **Lubow** Ikuko, **Mandeville** Francine, **Masuga** Becky, **Mell** Cheryl, **Menard** Marilee, **Mendoza** Miguel, **Mericle** Maria Romina, **Miller** Robert Eric, **Mills** Kevin, **Morris** Jennifer & Carlos, **Münchener Tierpark Hellabrunn AG**, **Murphy** Albert, **Myers** Carole, **Neporova** Daniela, **Ogura** Tadatoshi, **Ooms** Wim, **Peeble** Mary, **Pevratil** Julie, **Pope** Elizabeth, **Reifschneider** Linda, **Reisinger** Andreas, **Rieden** Debi, **Rodriguez** Jorge, **Rubin** Jane, **Rude** Susan, **Rygwelski** Sheila, **SAZARC**, **SeaWorld & Busch Gardens Conservation Fund**, **Schwartz** Karin, **Sixsmith** Mark, **Smith** Mary D, **Smith** Shannon, **Spencer** Barbara, **Spielmann** Danielle, **Stevenson** Miranda, **Stewart** Penny, **Tomonaga** Masaki, **Twycross Zoo**, **Uchikoshi** Makiko, **Ung** Lee Hanae, **Union of Czech and Slovak Zoos**, **Vander Linden** Dan, **Verduzco** Doug, **Vom Brauck** Elke, **Wagner** Alexander, **Wales** Cheri, **Wang** Xin, **Watanabe** Keiko, **Wellington Zoo Trust**, **Wong** Staci, **Zoo Landau in der Pfalz**, **Zoo Outreach Organisation**, and **Zucchet** Lorna

