

(社)日本動物園水族館協会における東日本大震災被災園館への対応

The Response by JAZA to Assist Zoos and Aquariums Impacted by the Great East Japan Earthquake

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Director, Kamogawa Sea World



I am Kazutoshi Arai from JAZA, the Japanese Association of Zoos and Aquariums. Today I would like to present a report about our response in assisting the zoos and aquariums impacted by the Great East Japan Earthquake.

JAZA was established in 1939 with objectives to expand the zoos and aquarium business in Japan while promoting Japanese culture and science & technology. It has since developed into an organization that currently has 153 members including 87 zoos and 66 aquariums.

As soon as the Great East Japan Earthquake had struck on March 11, 2011, we at the JAZA Secretariat began collecting information by phone and email about the damage to zoos and aquariums. We were able to confirm that there were various levels of damage to 13 zoos and aquariums. Fortunately, there were no human casualties among visitors or staff. Most of the damage was caused directly by the earthquake and only two aquariums were damaged by the tsunami. Generally speaking in the past, because zoo facilities are very solidly constructed, they have only very rarely collapsed due to earthquakes. On this occasion too, only partial damage occurred, and no facilities collapsed.

The main kinds of damage reported at zoos were water supply stoppages due to broken pipes, heating stoppages due to power failures, and difficulties in obtaining food supplies due to logistical problems.

On the other hand, in the case of aquariums, major damage has been reported in the past from earthquakes. One example was the damage caused to Suma Aqualife Park Kobe at the time of the Great Hanshin-Awaji

Earthquake in 1995, which remains fresh in our minds. This time, although the actual damage to water tanks and buildings was light, approximately half of the aquatic animals in the affected aquariums died due to water pipe breakage, power cuts or water supply stoppages. At both Marinepia Matsushima Aquarium and Aquamarine Fukushima, while the damage to buildings and water tanks was not particularly great, the machine rooms and electrical rooms were submerged by the tsunami. Matsushima Aquarium was fortunate in that the damage to the creatures was light. But at Aquamarine Fukushima where the tsunami reached a maximum height of 4.2 meters, apart from the larger animals, about 90% of the aquatic animals perished. Aquariums tend to be damaged more heavily than zoos because they depend to a greater extent on a stable supply of electricity and water. Accordingly, aquariums are equipped with privately owned emergency-use electrical power generation facilities, and these were effective in the case of Matsushima Aquarium. But at Aquamarine Fukushima, although they were effective to some extent, they were unable to cover the aquarium's overall needs.

As I said before, immediately after the earthquake struck, we began collecting information at the JAZA Secretariat in Tokyo. JAZA operates a general website that is open to the public, plus an exclusive members' use website with an ID registration system. This is effective for gathering information and providing information to our members. Also, having completed a mailing list for the directors of each zoo and aquarium, JAZA members were able to share information from the Secretariat more widely. However, when the earthquake struck, the JAZA server was damaged and the websites

went down. So we began issuing information via Facebook on March 12. Fortunately, the website was quickly restored, and on March 13, JAZA received requests for emergency transportation of foodstuffs and for the evacuation of animals from zoos and aquariums affected by the disaster. The association then began to make concrete assessments and preparations so as to deal with these requests. Regarding the release of information, (apart from within JAZA itself) we attempted to send out information centered on damage reports and the response status, and on requests for condolence payments, etc., in English and Japanese. In addition, on March 14, we started collecting condolence funds at JAZA member zoos and aquariums nationwide.

On March 14, we obtained authorization from the Ministry of the Environment for the emergency transfer of rare species of wild animals, and between March 16 and April 1, we transferred these animals away from Aquamarine Fukushima. Nine individuals from four species of mammals (the sea lion, walrus, harbor seal and Eurasian river otter); 13 individuals of two bird species, (namely the murre and tufted puffin); two individuals of two amphibian/reptile species (the giant salamander and green python); and 244 individuals of 29 species of saltwater and freshwater fish and invertebrates were moved from seven zoos and aquariums. Early in the transfer period, because detailed communication from Aquamarine Fukushima was difficult, the accepting zoos and aquariums played a leading role in carrying out the transfer while maintaining close conduct with the JAZA Secretariat.

From March 18 to April 4, we transported foodstuffs to six zoos and aquariums. Among the items we dispatched were solid feed, meat, fish, vegetables and fruit. After these goods, which were donated from 34 facilities, were collected at administrating zoos and aquariums, they were transported by air and sea as well as by land on trucks with emergency vehicle designations. Staff from the administering zoos and aquariums and cooperating businesses took part in the operation. Sapporo Maruyama Zoo organized the air transport of vegetables from Sapporo to Haneda and Japan Airlines carried the cargo free of charge.

On March 22, Kamine Zoo in Hitachi City reopened, then on April 7, a harbor seal that had been evacuated to Kamogawa Seaworld from Aquamarine Fukushima gave birth successfully. On April 20 and April 27 respectively, the 'First and Second Meetings of Zoos and Aquariums Damaged by the Great East Japan Earthquake' were held at Yagiyama Zoological Park in Sendai City and at Kamine Zoo in Hitachi City. Eight zoos and aquariums attended the meetings with participants also paying visits to damaged zoos and aquariums, exchanging opinions on damage status, visions for restoration and reconstruction, and requests to JAZA.

We formed a committee to oversee condolence payment distribution by asking three external experts (in addition to JAZA board members) to serve as officers and the JAZA chairman was appointed as committee chairman. This committee held three meetings on June 22 and 29 and July 27, respectively. The meetings were used to confirm the status of the damage situation and review the requests of each zoo and aquarium. From these assessments we discussed the condolence money allocation in terms of specific recipients, criteria and amounts. Based on the results of these discussions, we appealed to our members to collect condolence money to support the damaged zoos and aquariums and set a target date for the end of June. By that time, we had received approximately 49 million yen. But even in July condolence money was continuing to pour in so we decided to continue with the collection drive.

On April 23, Yagiyama Zoological Park and Matsushima Aquarium in Sendai City both reopened to the public. From the end of April until the end of June, we provided support to Matsushima Aquarium including supplying fish. From the end of May to the end of June, several zoos and aquariums helped out with restoration work at Aquamarine Fukushima. Also, from June 9 to early July, we cooperated with Aquamarine Fukushima by collecting living things and in the return of the previously evacuated sea mammals. We safely brought back the two walruses evacuated to Kamogawa Seaworld as well as the harbor seal mother and her cub born during the evacuation. The child was given the

name Kibo, meaning “hope”, and it became a symbol of the reconstruction. On July 15, Aquamarine Fukushima restarted operation and hosted a reopening ceremony on a specially built stage made of rubble. It was here that the name of Kibo, the new harbor seal cub, was announced.

On July 27, we held the third meeting of the condolence money distribution committee and decided on the distribution method. From the collected funds total we first deducted the amount billed for expenses required for foodstuff transportation and the evacuation of animals during the immediate aftermath of the earthquake. We then decided to distribute the remaining amount on a pro-rata basis in accordance with the damage declarations provided by the damaged zoos and aquariums, as well as in consideration of the individual situations of each zoo and aquarium. Finally, we elected to provide condolence money to four zoos and aquariums. The four recipients are planning to use this money for restoring their characteristic facilities. We presented a report detailing the distribution of the condolence money to the directors of JAZA member zoos and aquariums and also made the report public on the JAZA website and via Facebook. On August 8 and 9, the chairman visited these four zoos and aquariums himself and presented the condolence money. Even now, condolence money donations are being sent to JAZA. As of December 18, the total amount reached approximately 57 million yen. The total amount was being tallied every three months, so a second distribution was carried out between December 20 and 26 in the same way as in August.

In October, JAZA chairman Shigeyuki Yamamoto attended the annual meeting of the World Association of Zoos and Aquariums (WAZA) held in the Czech Republic, where he reported on the damage caused by earthquake and the reconstruction situation, and thanked the other members for their cooperation in the form of relief donations, etc.

Today I have given an account of how JAZA's response to the earthquake has progressed, and as a representative of the Association, I would like to take

the opportunity to once again express our gratitude to all the organizations and individuals that have cooperated and supported us in our effort. Thank you very much.



(社) 日本動物園水族館協会における
東日本大震災被災園館への対応

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社団法人
日本動物園水族館協会

Japanese Association of Zoos and Aquariums

社団法人日本動物園水族館協会(JAZA)は、動物園水族館事業の発展と共に、日本の文化や科学技術を振興させることを目的として、1939年に発足した組織で、現在、国内の153園館(動物園87・水族館66)が会員として加盟しています。

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震災対応経過 1

- H23.3.11 東日本大震災発生、被害情報収集開始
- 3.12 Facebook 利用開始
- 3.13 被災動物園水族館から飼料の輸送又は動物の緊急避難要請
- 3.14 被災動物園水族館への見舞金募集開始
- 3.16 ふくしま海洋科学館から被災動物の移送(～4月1日)
- 3.18 被災動物園水族館へ飼料の輸送(～4月4日)
- 3.22 かみね動物園が営業再開
- 4.7 避難中のゴマファザラシ「クララ」出産
- 4.20-27 第1回・2回東日本大震災被災動物園水族館会議開催

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被災動物園水族館

No.	園館名	所在地
1	盛岡市動物公園	岩手県盛岡市
2	仙台市八木山動物公園	宮城県仙台市
3	宇都宮動物園	栃木県宇都宮市
4	那須どうぶつ王国	栃木県那須郡那須町
5	桐生が岡動物園	群馬県桐生市
6	日立市かみね動物園	茨城県日立市
7	井の頭自然文化園	東京都武蔵野市
8	マリニピア松島水族館	宮城県宮城郡松島町
9	ふくしま海洋科学館	福島県いわき市
10	栃木県なかがわ水遊園	栃木県大田原市
11	アクアワールド茨城県大洗水族館	茨城県茨城県大洗町
12	輪川シーワールド	千葉県輪川市
13	東京都葛西臨海水族園	東京都江戸川区

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震災対応経過 2

H23.4.23	八木山動物公園とマリニピア松島水族館が営業再開
4 末	マリニピア松島水族館への魚類等の提供支援(～6月末)
5 末	ふくしま海洋科学館への復旧作業応援(～6月末)
6. 9	ふくしま海洋科学館への生物収集協力および輸送動物の保護(～7月上旬)
6.22	第1回見舞金配分委員会開催
6.29	第2回見舞金配分委員会開催
7.15	ふくしま海洋科学館が営業再開
7.27	第3回見舞金配分委員会開催
8.8・9	被災動物園水族館へ見舞金を贈呈(第1回)
10. 4	WAZA年次総会で山本会長報告
12.20～26	被災動物園水族館へ見舞金を贈呈(第2回)
12.28	現在見舞金受付金額 56,930,483円

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震災対応経過 2

- H23. 4. 23 ハ木山動物公園とマリニピア松島水族館が営業再開
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- 8. 8-9 被災動物園水族館へ見舞金を贈呈(第1回)
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見舞金配分

被災園館名	使途予定
1. ハ木山動物公園	サル山改築費用
2. かみね動物園	小獣舎等復旧費用
3. マリニピア松島水族館	ペンギン水槽空調工事費用
4. ふくしま海洋科学館	タッチプール復旧費用

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