



# Editorial

## Japanese Tsunami And Nuclear Disaster What About The Bees?

IBRA has friends and long standing members in Japan so along with the rest of the world we looked in horror at the events of early March and followed, with total incredulity, as disaster seemed to be heaped on disaster in the following days.

As the world now knows the catastrophe started on 11<sup>th</sup> March with an earthquake measuring 9.0 on the Richter Scale. The earthquake epicentre was in the sea off the east coast of Japan and this triggered a tsunami with a frontal wave of unprecedented size sweeping, in places, as far as 8 kilometres inland. Until the wave had spent its energy all before it was wiped out in a swathe of destruction and devastation that mercifully few of the billions watching on tv news channels across the world had ever witnessed.

The fullest weight of the disaster was felt in the relatively large prefecture of Fukushima on the Island of Honshu. The administrative area can be divided geographically into three regions: Aizu (the western most hilly interior), the midlands and the coast. The Fukushima Nuclear Power Plant is located upon the coast in what was once a coal mining area.

The nuclear power plant was first hit by shockwaves causing severe damage and then came the next blow of the tsunami which took out the backup and fail-safe systems so vital when nuclear energy and consequent radiation risks are concerned. The reactor cooling systems were destroyed, leading to nuclear radiation leaks and triggering a 20 km evacuation zone surrounding the plant.

There are many bee colonies in Fukushima at this time of the year. Sadly many of those beekeepers and their bees have been lost although exact figures are not available at present. Those that remain are concerned about the effects of radiation on their bees and on the available forage. The disruption to the roads, infrastructure and the lack of fuel for vehicles has also meant great difficulty for some beekeepers to get to their apiaries.

Japanese Beekeepers Association (JBA) has received many inquiries from the members seeking help and advice. At the end of last season many colonies were placed in out-apiaries in Fukushima to overwinter and to be on hand for an early start in the pollination of the fruits like cherry, peach and apple. The major honey flow of *Robinia pseudo-acacia* in the region comes in late May.

I have been in correspondence with Dr Hitomi Enomoto of the Asian Apicultural Association. She tells me that there was little information in relation to honeybees and radiation available from the Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF). Therefore, IBRA member, Professor Jun Nakamura of Tamagawa University has been called in as a consultant to both the JBA and MAFF in this desperate situation. He has taken various radiation-measuring devices to the city of Iwaki. There he is working with Mr Mizuhisa Fujiwara a third generation local beekeeper, and ex-student of Tamagawa University, to check the health of the bees and the general situation.

The Livestock Hygiene Service Centre of South Soma, that covers the Coast area of Fukushima, is already helping the beekeepers to evacuate the colonies, and providing them with disease-free certificate on site. From the JBA we understand that there are still about 1500 colonies within a radius of 20-30km from the power plant, that is, much of the area covered by the exclusion zone.

Japan is an affluent and proud country and has not asked for help to cope with its problems. However, it may be of some help to look at previous ecological and radiation disasters. Foremost in our minds must be the Chernobyl melt down of 26 April, 1986 and the events on Three Mile Island on 28 March, 1979. Scientists certainly looked at these two events from an apicultural perspective and their work generated around 50 abstracts and papers recorded in the IBRA/Eva Crane Library.

Dr Enomoto's emails to me tell of the refugee problem and of her own continuing fears as even Tokyo, some 170 kms away from Fukushima, is still rocked by aftershocks and possibly new earthquakes from the tectonic plates under the ocean. However, I think her fortitude and the courage of the nation can be summed up in her final sentences, which I include here in their entirety:

"A yellow butterfly was flying in my garden today. The first one in this spring. Cherries are at full bloom now in Tokyo. Many spring flowers encourage us."

Richard Jones  
Editor