



IAEA

60 Years

Atoms for Peace and Development

IAEA Support to Japan's Marine Monitoring Programme

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Director

IAEA Environment Laboratories

2014 – 2016

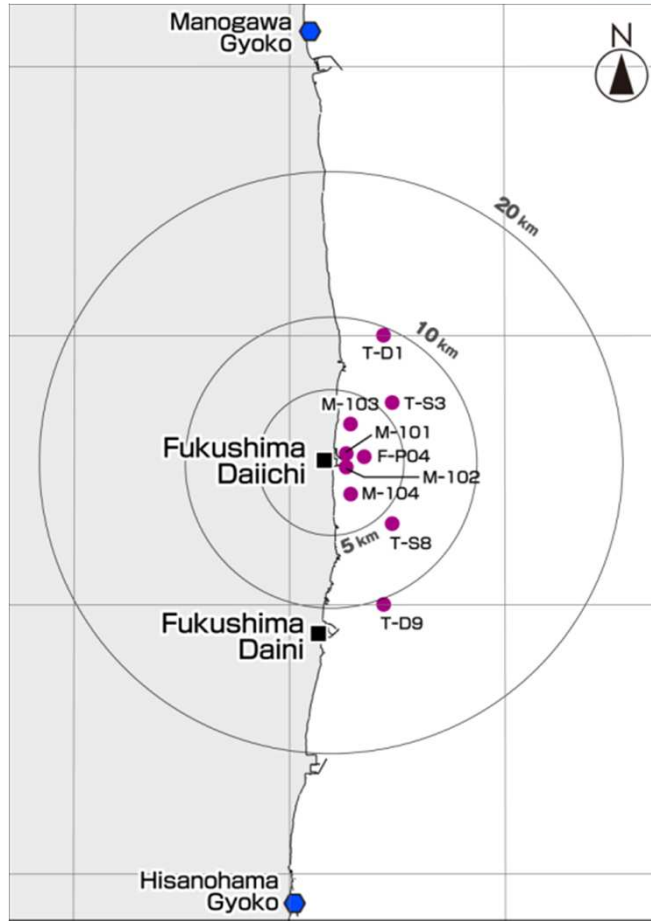
Six interlaboratory comparisons with six sampling missions
Three proficiency tests



10 Laboratories Participating in Interlaboratory Comparisons

- Environmental Protection Agency (EPA), Ireland
- Fukushima Prefecture (FP,) Japan
- Geo Science Laboratory (GSL), Japan
- IAEA Environment Laboratories, Monaco
- Institute of Environmental Science and Research (ESR), New Zealand
- Japan Chemical Analysis Center (JCAC), Japan
- Japan Frozen Foods Inspection Corporation (JFFIC), Japan
- KANSO Co. LTD., Japan
- Marine Ecology Research Institute (MERI), Japan
- Tokyo Power Technology (TPT), Japan

Location of sampling stations



Collection of fish samples



Collection of seawater samples immediately offshore Fukushima Daiichi Nuclear Power Plant



60 Years

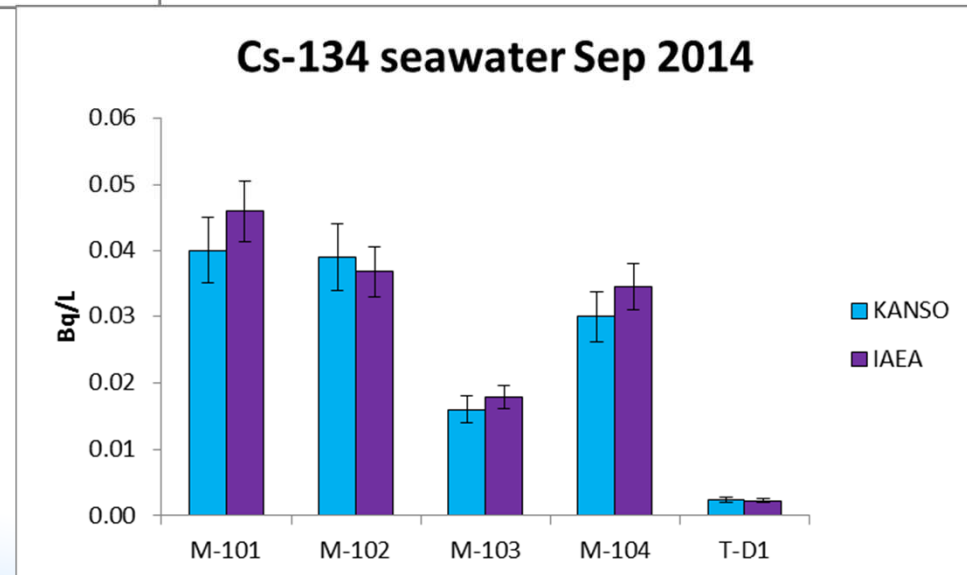
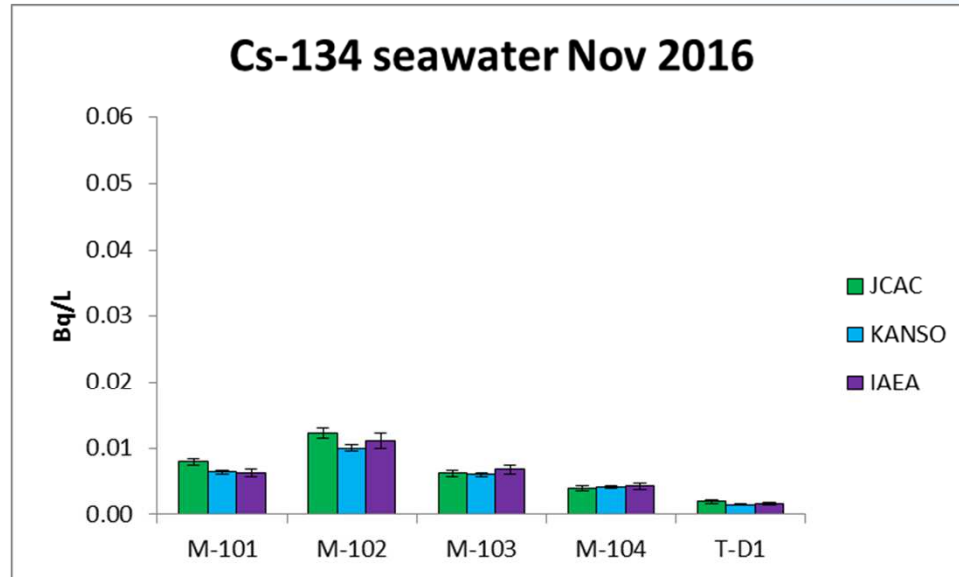
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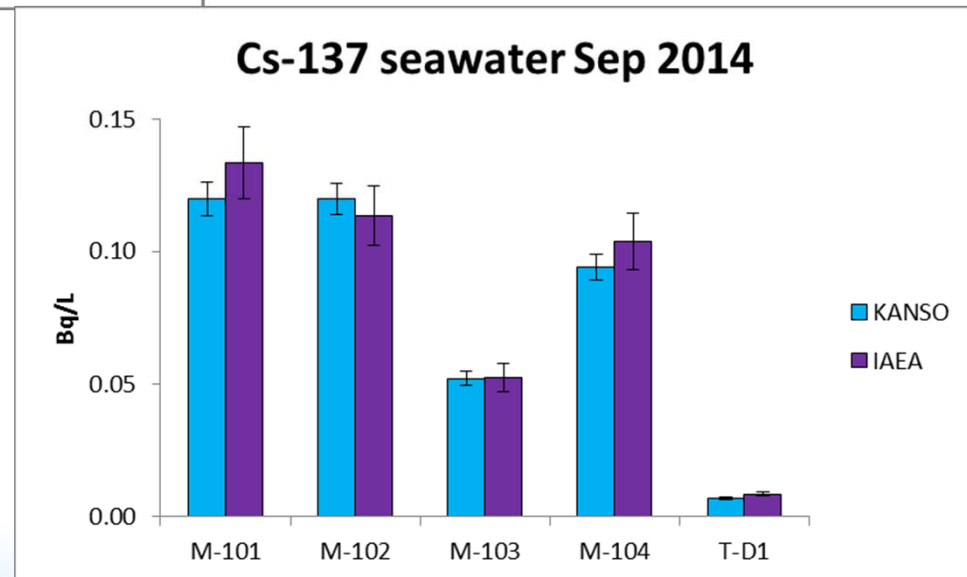
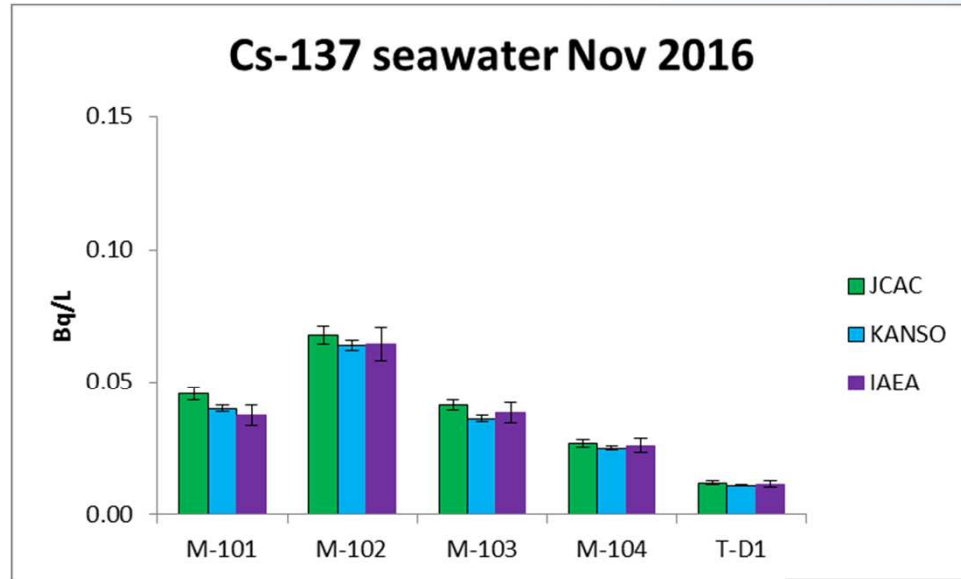
Collection of seawater samples



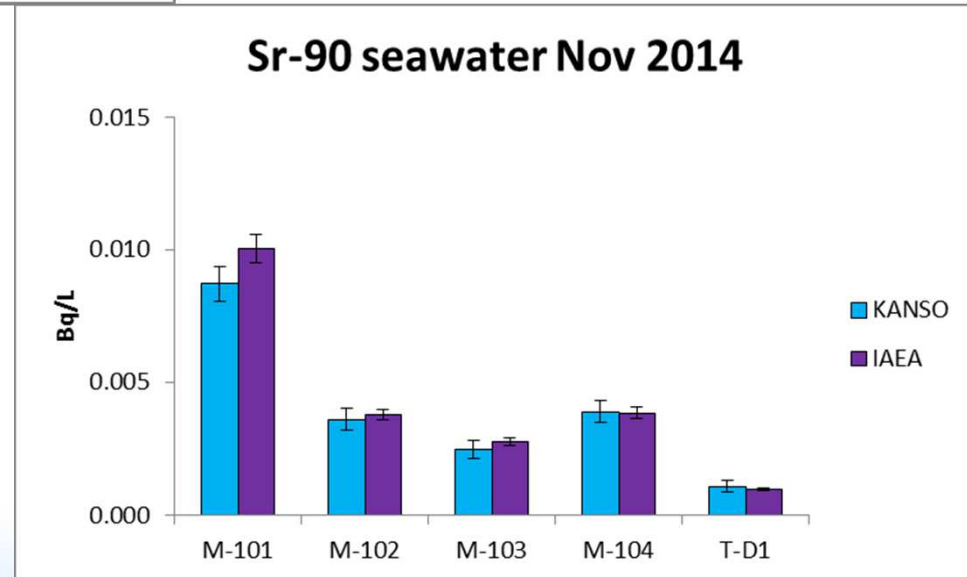
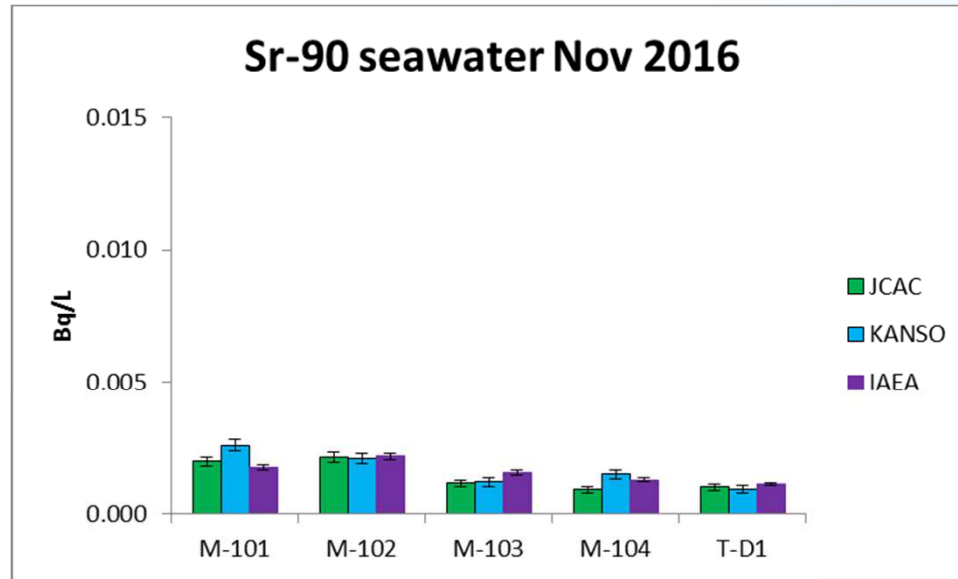
Caesium-134 in seawater



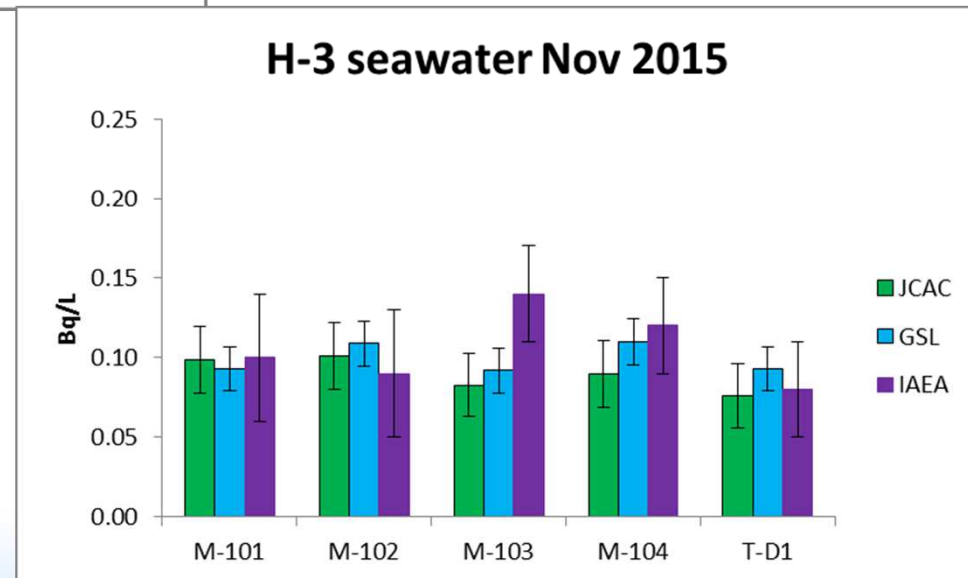
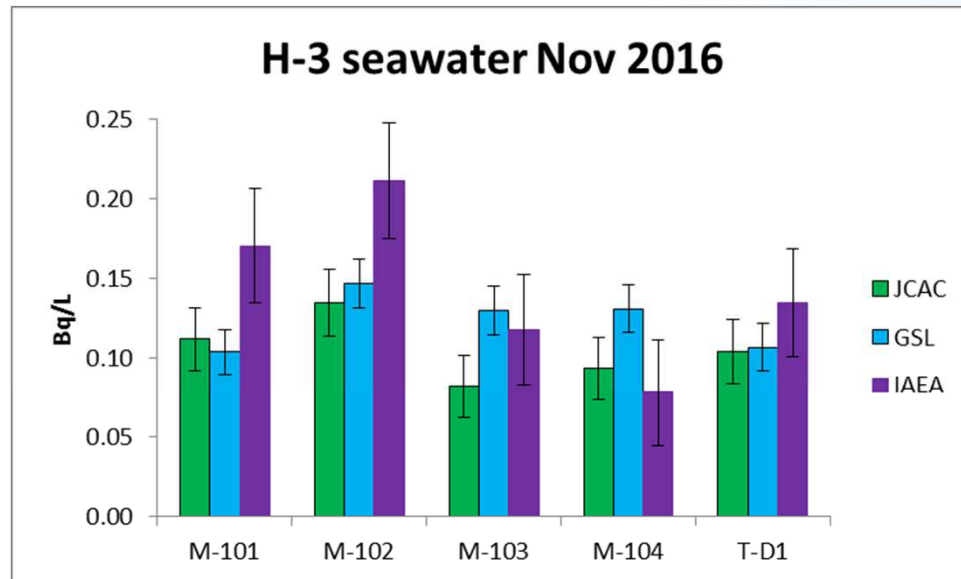
Caesium-137 in seawater



Strontium-90 in seawater



Tritium in seawater



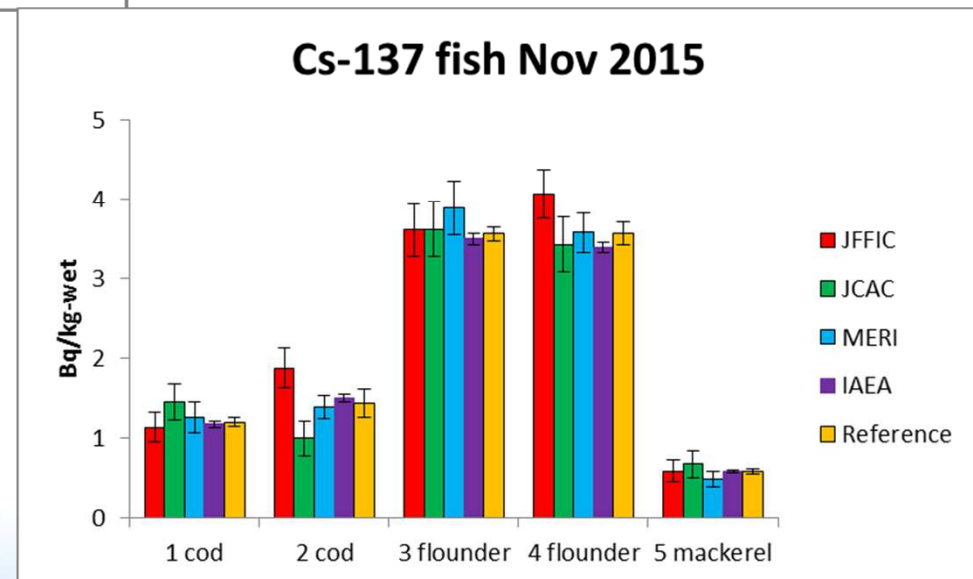
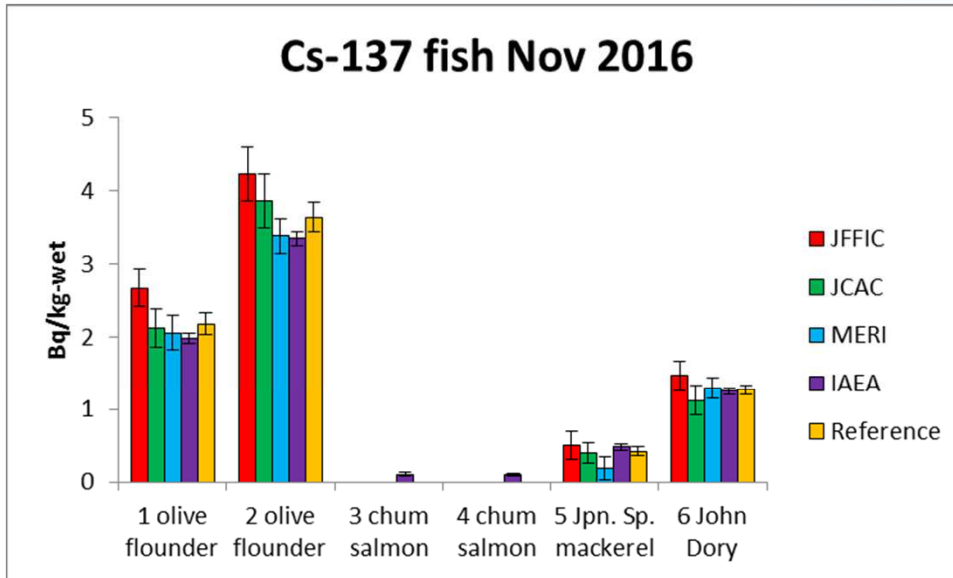
Collection and preparation of fish samples



Preparation of fish samples



Caesium-137 in fish samples



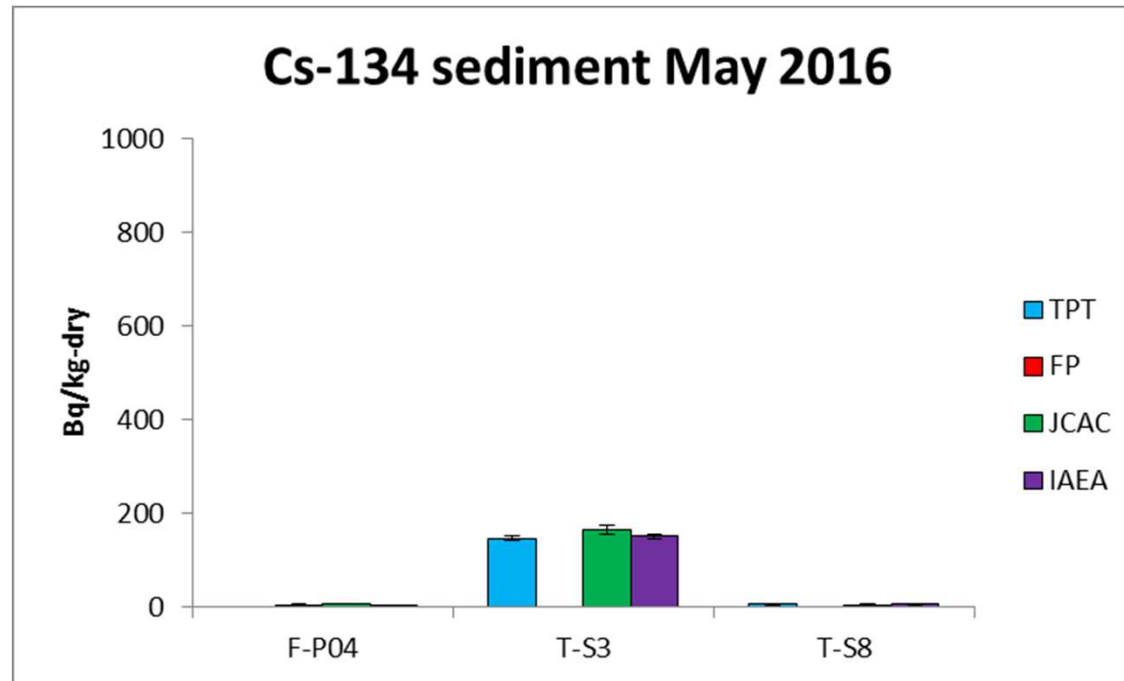
Collection of sediment samples



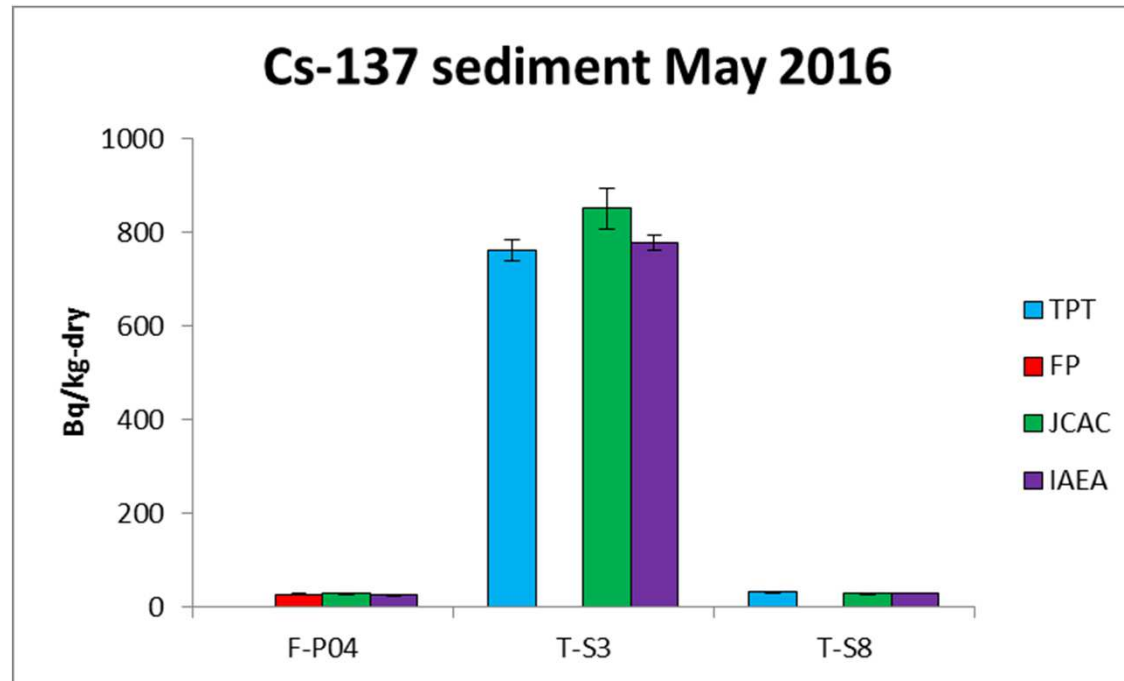
Preparation of sediment samples



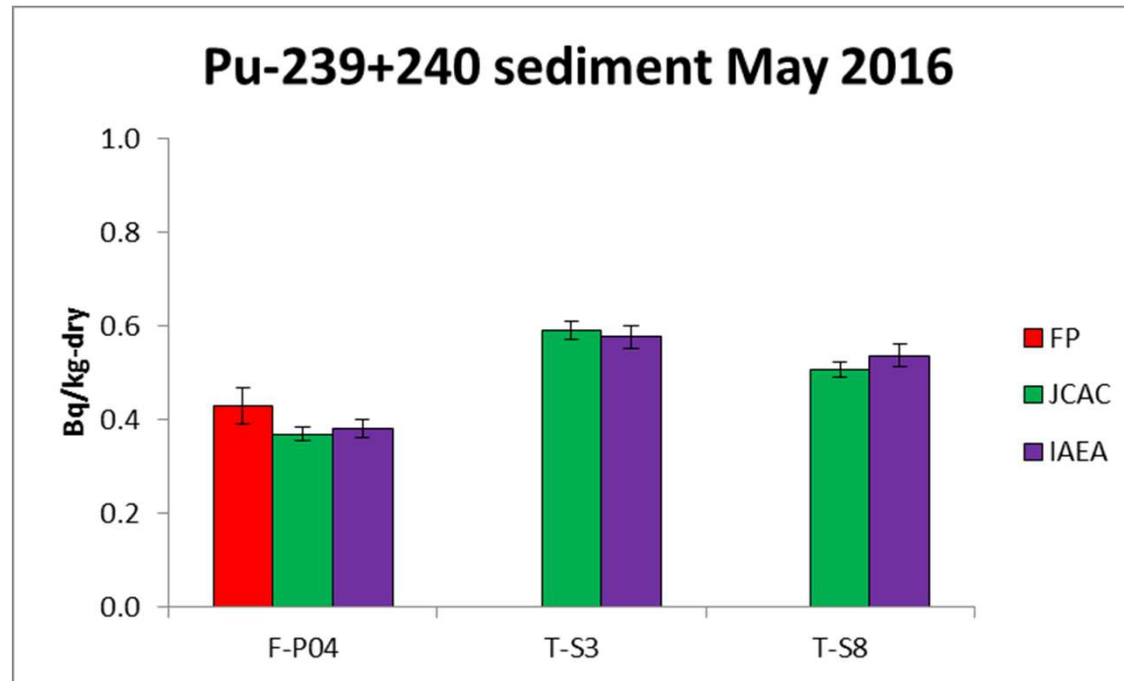
Caesium-134 in sediment



Caesium-137 in sediment



Plutonium-239 and plutonium-240



Conclusion of 2017 report on interlaboratory comparisons

Japan's sample collection procedures follow the appropriate methodological standards required to obtain representative samples



Conclusion of 2017 report on interlaboratory comparisons

- Japanese laboratories analysing seawater, marine sediment and fish samples from near the Fukushima Daiichi Nuclear Power Plant in Japan produce reliable data.
- The results demonstrate a high level of accuracy and competence on the part of the Japanese laboratories involved in the analyses of radionuclides in marine samples for the Sea Area Monitoring programme.

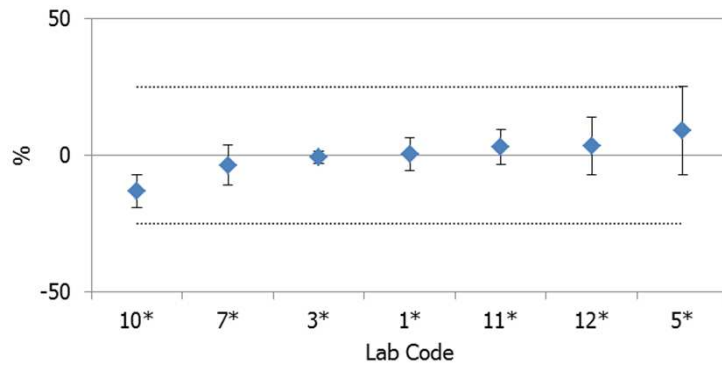
Proficiency tests

	2014	2015	2016	2017 (planned)
Japanese participants	12	10	17	23
Total participants	30	43	55	80

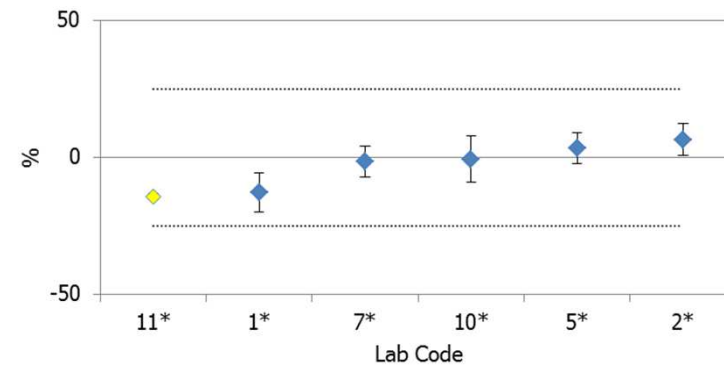
- The Japanese participants obtained very good results in all three exercises.
- The large majority of Japanese results (85 %) were accepted.
- For all participants (including Japan) 71 % of the results were accepted.

2014 proficiency test Japanese Laboratories

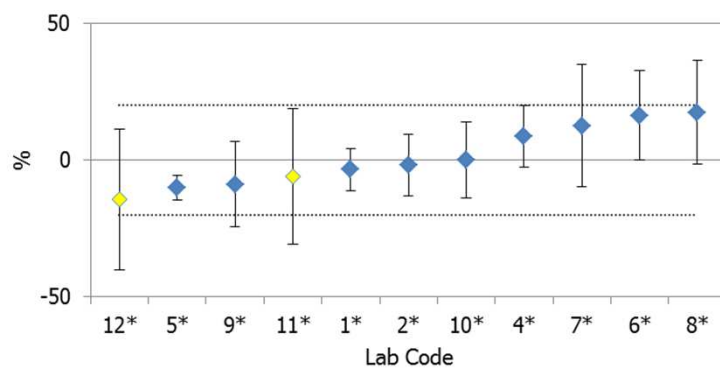
H-3



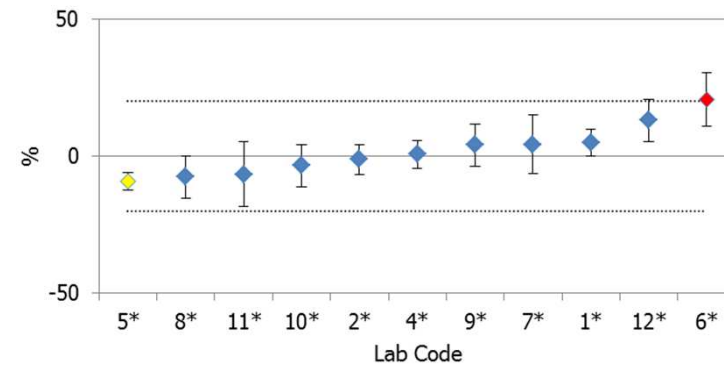
Sr-90



Cs-134

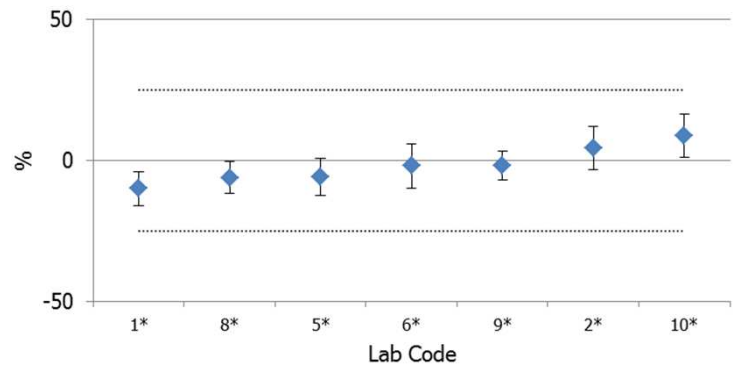


Cs-137

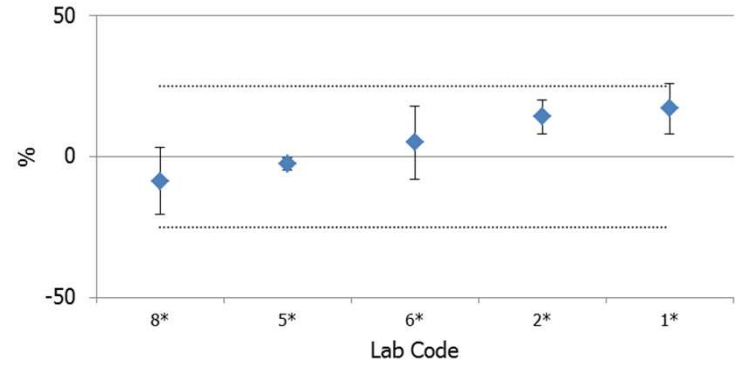


2015 proficiency test Japanese laboratories

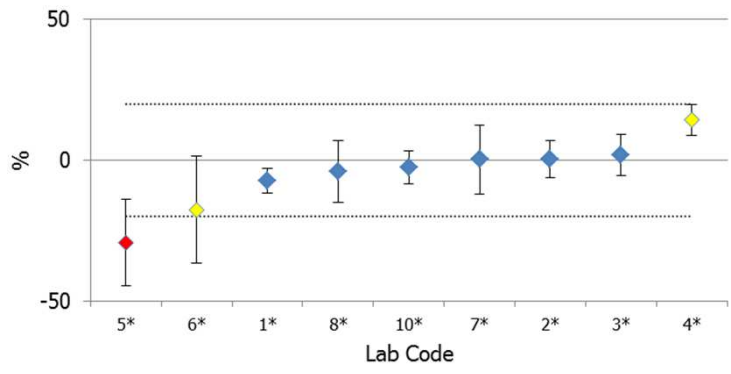
H-3



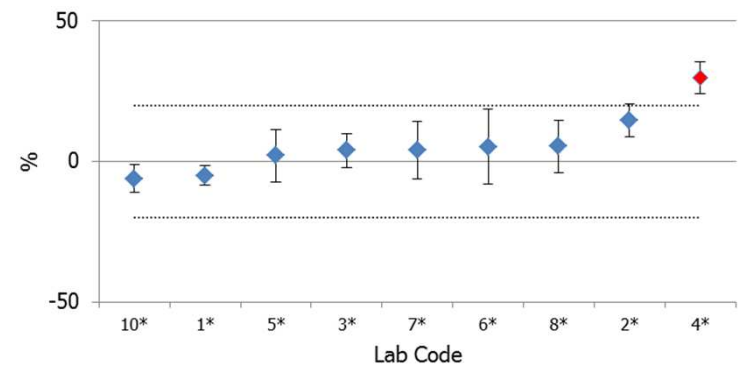
Sr-90



Cs-134

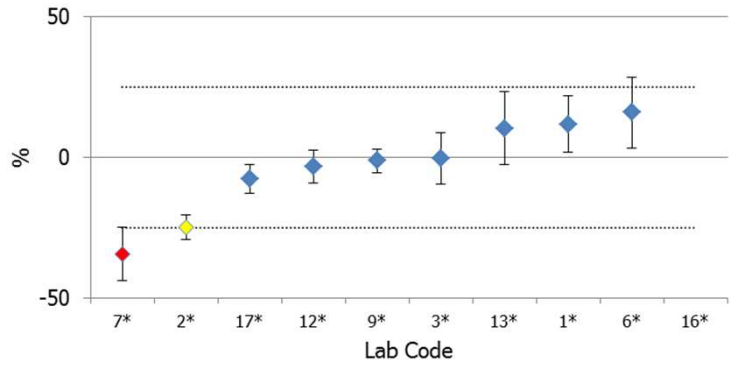


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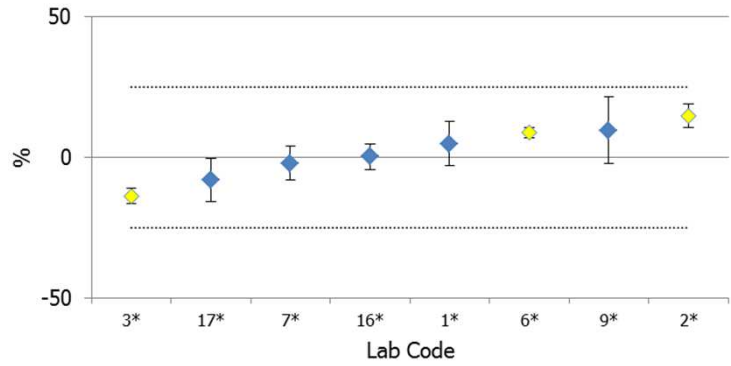


2016 proficiency test Japanese laboratories

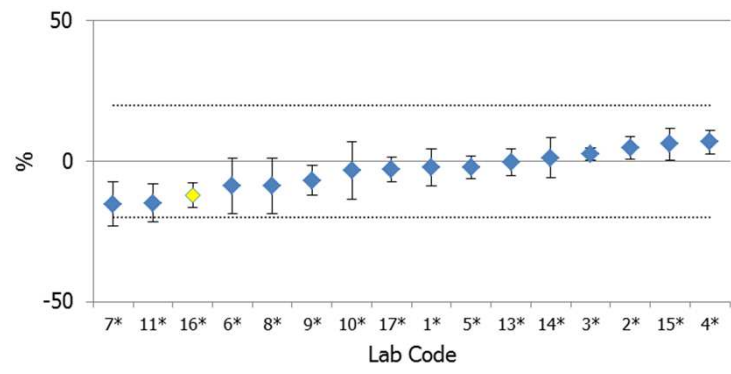
H-3



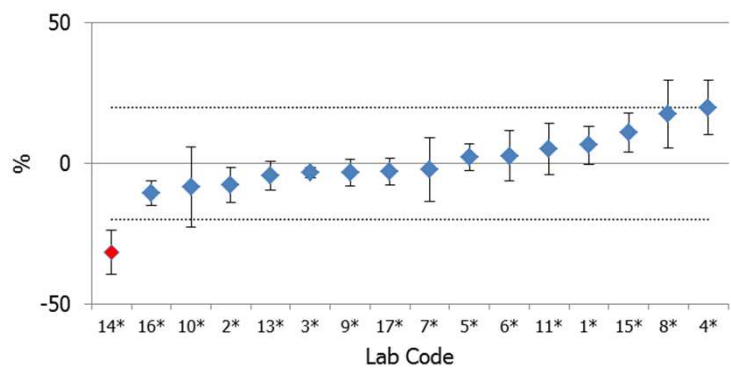
Sr-90



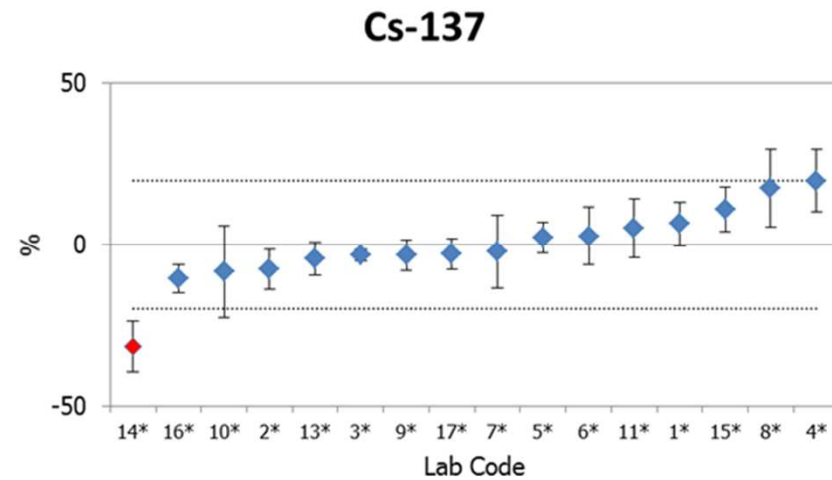
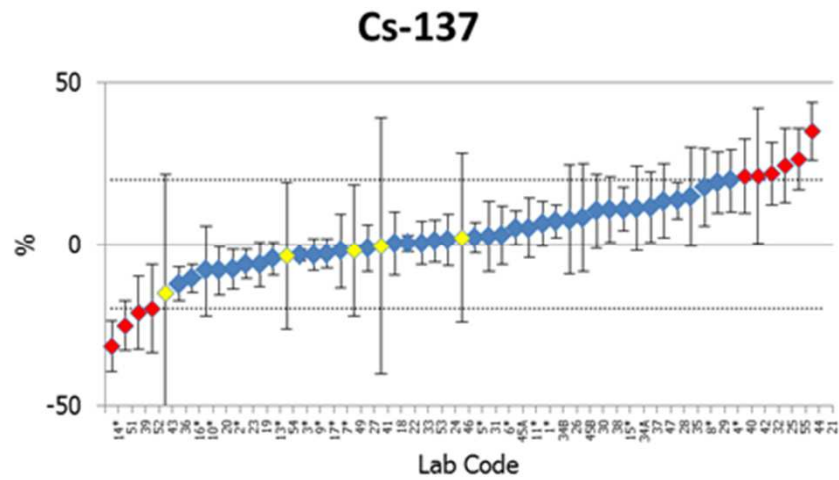
Cs-134



Cs-137



2016 proficiency test all laboratories and Japanese labs





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Thank you

