

To: PWS RCAC Volunteers and Staff
From: Bob Benda, TOEM Chair

Re: Trip Report 13th International Aquatic Invasive Species Conference

The conference was held in Ennis, Ireland, the Silicon Valley of Ireland, and was attended by 300 people from 36 countries. The 210 presentations were in three concurrent sessions and were given over 5 days. I attended the shipping presentations during most of the conference with a few side trips to biology and management presentations. I will summarize what I felt were the most important points made at the conference session I attended:

1. The TAPS vessels, through Congressional Acts, are exempt from Ballast Water Management practices for invasive species; including the US Coast Guard (USCG) Shipboard Technology Evaluation Program (STEP).
2. The three major vectors for invasive species worldwide are ballast water, hull fouling and aquaculture, except in the Mediterranean where a sewage channel is the major pathway.
3. Ballast water exchange was stated as being the treatment of choice for the foreseeable future according to the International Maritime Organization (IMO) presentation. When I asked what time foreseeable future meant they indicated until 2016 or until a better method was forthcoming.
4. Greg Ruiz's presentation for ballast water exchange on the TAPS tankers indicated that empty/refill was the best ballast water exchange method with 100% reduction of non-indigenous species (NIS). Empty/refill is also the most dangerous for the ship to perform. The 100% flow-through showed 60% reduction of NIS and 300% flow-through showed 75% reduction of NIS. The 300% flow-through takes much more time.
5. Residual sediments in the ballast water tanks is a source of NIS even after ballast water exchange, but the risk is low for NIS introductions due to the low numbers of organisms in the sediments. Sea chests on ships were also demonstrated as a vector for adult forms of NIS.
6. The US Fish and Wildlife Service (USFWS) ballast water demonstration program had one study for an on-shore facility, but it didn't work out due to the time involved to de-ballast. I have asked Pamela Thibodeaux, the USFWS presenter, for additional information on this demonstration.
7. Many of the ship-board technologies were for cruise ships and other types of vessels, not oil tankers. The only ones for oil tankers presented were similar to the ones presented last year at Windsor, Ontario and included de-oxygenation, low pH, and hydroxyl radical dielectric barrier discharge. One vendor, ECOCHLOR, used chlorine dioxide for ballast water treatment. Their representative, Mike Hasson, contacted me after the presentation and I have their address to add to our files.
8. One of my side trip presentations was of interest for coastal ballast water exchange as TAPS vessels would be doing. The presenter was concerned that the ballast water exchange might become a vector for introduction of NIS in waters

- along the ships route. Another presenter indicated that near-shore ballast water exchange might not be as effective as mid-ocean exchange in reducing NIS.
9. The IMO standards are less stringent than what the USA wants.
 10. There was a concern that LASH vessels may become a vector for NIS in the USA. These are vessels which travel onboard transoceanic vessels and are detached and towed into freshwaters. They are used in Europe and the presenter thought they might be being used in the Mississippi River basin area.

Overall the conference was very informative and I wish I could have heard many of the other talks. I will file the abstracts at the Valdez RCAC office for anyone who wants to look at what was presented.