2015 Aquatic Sciences Meeting

Aquatic sciences: global and regional perspectives - north meets south

I have participated in the international conference „2015 Aquatic Sciences Meeting; Aquatic sciences: global and regional perspectives- north meets south" organized by the Association for the Sciences of Limnology & Oceanography (ASLO) in 22-27 February 2015. This event was located in Granada (the South of Spain). The City is anchored by the Sierra Nevada Mountains, the highest mountain range of the Iberian Peninsula and the tropical coast of the Mediterranean Sea.

For more than 50 years, ASLO has been the leading professional organization for researchers and educators in the field of aquatic science. There is currently more than 3,800 members. Members are drawn from 58 countries including the United States, and more than a quarter of the members reside outside the U.S.

Plenary talks and special sessions were focused on global and regional patterns of aquatic systems in diverse northern and southern inland water biomes and oceanographic provinces emphasizing both similarities and differences. This theme is a critical scientific challenge as our discipline moves to understand and confront human accelerated environmental change.

The conference consisted of:

- 137 different thematic sessions of oral presentations
- various workshops
- poster sessions
- plenary sessions

For me, the most interesting were sessions that concerned oceanic topics, such as:

- Biogeochemical processes of Antarctic shelf systems;
- Food web interactions and trophic linkages;
- Freshwater ecosystems and the carbon cycle: exploring differences across climatic regions
- The global ocean ecosystem: patterns, drivers and change;
- Addressing regional or global questions about trophic ecology using lipids or stable isotope ratios;
- Aquatic chemical ecology – how organic compounds regulate trophic interactions;
- Microscopic plastic debris and its impact on aquatic ecosystems.

I have presented a poster „The fate of PCBs in the Arctic marine ecosystem". This poster shows the degree of the PCBs accumulation in Arctic organisms. It was presented using the example of Atlantic cod collected from Kongsfjorden (Svalbard). The concentrations of selected polychlorinated biphenyles (CB28, CB52, CB101, dlCB118, CB138, CB153, CB180) has been

measured in samples from liver and muscles. The Σ7PCBs concentrations ranged from 5.1 to 14.6 μg/kg w.w. in fish muscles, and from 727.4 to 2296.9 μg/kg w.w. in the fish liver. Results indicate the highest proportion of CB28 and CB138 congeners. The PCB congeners accumulate in fatty tissues of organisms, moreover they biomagnify in the trophic chain. Many PCBs identified in the Arctic are dangerous to living organisms due to the high level of toxicity. The presented study describes the factors influencing the transport and fate of PCBs in the arctic marine ecosystem.

I also took part in night tour to Alhambra – Islamic palace and fortress complex located in Andalusia, which is a UNESCO Word Heritage Site.

Participation in this conference significantly expanded my knowledge about oceanology, interactions in aquatic ecosystems and the impact of climate change on the marine environment.

Anna Pouch