

The Coastal Waters Consortium Presents: Scientist Spotlight



Dr. James Paruk

Q4.. What is your role as a scientist for CWC?

I am an ornithologist; I have been studying birds for 30 years. Most of that time has been spent studying the Common Loon (*Gavia immer*). I have become an expert on that species. Immediately after the Deepwater Horizon oil spill my team of researchers were down in Louisiana catching loons and testing them for polycyclic aromatic hydrocarbons (PAHs), because they winter there and potentially get exposed to them (PAH are toxic to wildlife and humans). My role is to continue this long-term avian monitoring of PAHs in loons, as well as to determine the overall health of this migratory wintering population.

Q5. Can you summarize your oil spill research and describe any surprising findings you have come across?

We have been studying PAH concentrations in loons off the coast of Louisiana for the past five years and have discovered that both body mass and red blood cell levels are being negatively affected by PAH concentrations. This has implications because loons wintering off the Louisiana coast are highly migratory (> 2500 miles), many breeding in Saskatchewan, and any adverse effects will likely impact their breeding success and potentially even their survival.

The Coastal Waters Consortium's mission is to assess the chemical evolution, biological degradation, and environmental stresses of petroleum and dispersant within Gulf of Mexico coastal and shelf ecosystems.



Q1. What is your educational background?

I received a Bachelor's degree in Biology at Lake Superior State University, a Master's degree in Biological Sciences at Northern Illinois University, and my Doctorate degree from Idaho State University.

Q2. What inspired you to become a scientist?

There was no "Eureka" moment for me, because of my urban background and lack of exposure to wild places and wild things, I was ignorant of a great many things. Eventually, I was exposed to the natural world. The more I learned about the natural world, the more I realized I didn't know, and I think that realization brought me to my appreciation for science. Science is not "the be all, and end all" of human knowledge, but it can assist us in learning about the earth and its inhabitants, and making wise decisions about them so they are around for future generations to enjoy.

Q3. Can you describe what you enjoy the most about conducting scientific research? It has probably been said many times, but discovery of the unknown would have to rank first as what I enjoy most about conducting scientific research. At our core, we are intellectual beings, we ask questions, we seek out new knowledge, we push ourselves for understanding; we are not satisfied or content with monotony. To be engaged and a practitioner of scientific research I get to use my brain, attempt to satisfy my curiosity, and learn something along the way; it is fulfilling.