Matt Landos

Director Future Fisheries Veterinary Service P/L

Of Fish and Men – Unintended consequences of pollution in the environment



Matt Landos took us on his personal journey from an animal veterinarian to a fish veterinarian and some career changing research he undertook for a client in 2008 who was operating a fish hatchery near Noosa, Queensland.

The fish hatchery was contiguous with a macadamia farm. Fish spawning season coincided with when the macadamia crop was sprayed. Subsequently serious development abnormalities were observed in multiple batches of fish larvae. The problems disappeared when the fish hatchery was moved to a location away

from the macadamia farm. Of particular note was the fact that the level of contamination was barely measurable.

The outcome of the research opened Matt's eyes to the potential impact of minute quantities of a range of endocrine disrupting chemicals to the development of fish and amphibians but with his unique veterinary experience and understanding of the common biology in all animals, the impact of these chemicals on all animal life.

To help us understand the ubiquity of these endocrine disrupting chemicals he presented a list of the most common categories.

- Pesticides (Herbicides, Insecticides, Fungicides)
- Wetting agents (alkylphenols)
- Plasticisers (BPA/ phthalates/ UV stabilisers)
- Flame-retardants (PFCs/PBC's)
- Non-stick & stain resistant coatings (PFAS)
- Gortex, Teflon, Scotchguard (PFAS)
- Cosmetics (PFAS, parabens, phthalates)
- Perfumes (Phthalates)
- Coal combustion/Waste incineration (PCBs)
- Pharmaceuticals (eg anti-depressants).

Matt then provided evidence of human impact of these chemicals in areas such as reduced testosterone, reduced fertility, increases in a range of chronic diseases including obesity and diabetes, increases in attention deficit disorder and autism spectrum in children, and increases in human developmental abnormalities.

He advocated strongly for the impact on human wellbeing of these chemicals to have a much higher profile than is currently the case and was open to advice from PROBUS members about how this might be achieved.

Matt highlighted the existence of IPEN (International Pollutants Elimination Network www.ipen.org) and provided links to a number of its papers.

- Link to IPEN here
- https://ipen.org/sites/default/files/documents/IPEN brochure update 2018 10 15 a.pdf

We thank him for a stimulating and, in some ways, troubling presentation.

Matt would welcome any questions arising from members, so feel free to contact him on matty.landos@gmail.com

Matt has made a copy of his presentation available on the Probus Club website.

Alec Brennan