

An Gáirdín Organic and Ecology Centre and Laudato Si.

Between April and December of last year 2017 we hosted three day-long seminars days on Laudato Si at An Gáirdín, Portumna:

1. Care for Our Common Home: Reconnecting with the Sacred in Nature
2. Nurturing Nature: Exploration of the Wonders of the Natural World
3. New Stories from Nature: Thinking afresh in a Time of Climate Change.

We hope to continue those reflection days on Laudato Si during 2018, so this month we hosted two workshops – How We Got Here, Understanding Climate Change on March 5th and Plastic Waste on March 10th. Our next reflection day is on Saturday April 21st when we will be looking at Food Security and Climate Change and how one person in this country is practically meeting this challenge in his farming methods.

How We Got Here – Understanding Climate Change: was facilitated by John Cleary MSc in Climate Change, Agriculture and Food Security NUIG. John has spent some time in Vietnam with farmers who are endeavouring to cope with Climate Change. In his presentation John began way back with the emergence of Earth herself and took us right up to the now. He looked at the carbon cycle in the context of resource use, bringing examples of how society has shifted to using fossil fuel as its primary energy source over the past centuries. This has led to the current build-up of greenhouse gases in the atmosphere. He looked at the scientific history of climate change, from John Tyndall to the Keeling curve, taking in carbon isotopes, climate models, and the problem of attribution along the way. Climate change is placed in the context of the broader ecological crisis currently facing the planet, and the competing demands of growth and ecological limits. Finally, John explored the idea of a carbon budget and assessed the state of play two years after the historic Paris Agreement. John's presentation is very well researched and is presented in a way that is accessible to all. He uses technology in a creative way. The session was very interactive with lots of questions. There are some awesome as well as some sobering moments during his presentation.

Plastic Waste. Dr. Anne Marie Mahon led this workshop. Anne Marie is researcher of micro-plastics at GMIT. Again this was a most enlightening event for all participants. It was an interactive session with hands-on activities and we ended the day with decisions for individual/ group action.

Anne Marie began by drawing attention to the fact that plastic has some positive aspects for humans, especially in the medical field. However plastic as a major pollutant has now infiltrated every nook and cranny of our daily lives. We have very serious marine, freshwater and terrestrial plastic pollution. As well as the threats inherent in plastic itself there are also additives in the plastic which release chemicals.

Plastic is not an inert substance. It is highly active, continuing to fragment into smaller and smaller particles as it breaks down, causing even more damage and is more subtly dangerous than when it is whole. Hence we have micro-plastic pollution as well as whole plastic pollution.

We looked at some of the causes/sources of plastic pollution. The top three markets for plastics are the building construction industry, packaging industry and the automotive industry. In the building construction industry, just one example from many is piping. Piping in itself is a destructive material but more subtle is the question of where the fragmentation which happens in the sawing of the pipes ends up. Online shopping has vastly, vastly increased plastic waste and almost everything to do with the automobile industry entails plastic.

Sewage sludge from water treatment plants contains plastic micro beads from our personal and domestic cleaning products, laundry liquids and washing-up liquids, toothpastes, shampoos, shower gels etc. These micro beads eventually end up in our water systems and/or as fertiliser on the land. Anne Marie brought in some lint from her washing machine and we were able under the microscope to

clearly see the micro plastics. Likewise under the microscope when the gel was removed we were able to see the micro fragments in toothpaste for '0 – 5years'

The Recycling Lie

However the fact that the recycling of plastics is even more destructive than the dumping of plastic was initially met with some disbelief. In the recycling process the plastic is crushed into micro fragments. The crushed plastic is then washed and the water containing the micro plastics is released into the water system which finds its way into rivers, lakes and oceans, on to the land, into the ecosystem, into our homes and into our bodies. Plastic recycling is a misleading and dangerous concept. It can also lead to an attitude of permission to consume at will.

Intervention

Anne Marie noted that we will not be able to eliminate plastic at this time. The plastic industry is unregulated. New plastic products, unlike any other product, can be released on to the market without undergoing any quality control. European legislation on environmental pollution as in the Water Framework Directive and other environmental guidelines, does not mention plastic among the list of pollutants.

It is now a matter of how we lessen our consumption of plastic and how we manage and dispose of it. We discussed intervention methods and how we can intervene in the plastic pathway.

Plastic Production → Plastic Consumption → Post Use and Plastic disposal

Note also that the pathway is a cycle. The Post Use/Plastic Disposal is intended to create the recycling industry, going back to the Plastic Production level and so the cycle begins all over again and we now know the lie inherent in the recycling of plastic. As individuals and as groups or communities we can intervene at each of these three levels, mainly by influencing policy and decision making. However it is as consumers that we can make the most immediate and perhaps the most effective form of intervention. We can do it today! Decrease or cessation of consumption will impact on production and post use/disposal.

So what can the plastic consumer do? In groups we listed – and they were long lists! - the plastic products we most use in our home/workplace going through the day from the time we get up until we go to bed. We rated the products in terms of necessity. We then rated them in terms of disposal i.e. single use plastics, multiple use and post use plastics. As we waded through the lists we decided that we could considerably reduce our use of plastics by eliminating what was unnecessary and by using available alternatives to plastic.

Why would we want to intervene reduce or eliminate plastics?

Anne Marie posed this question. There are human health reasons, health of the ecosystem – water, land, fish, animals etc. and concerns for the beauty of our surroundings. Perhaps the greatest motivation will come from our deep awakening to the most awesome story of the evolution of Planet Earth. When we cherish the beauty, the diversity, the fragility, the uniqueness of every species and of the interconnectedness of every aspect of the planet our urge will be to protect and care and not destroy. We have, for the most part unwittingly, taken part in the plastic pollution of Planet Earth through our use, misuse and abuse of plastic. We can now pledge to do what we can to prevent the continuation of this biocide. We were reminded of John Seymour's statement: 'I am only one person. I can only do what one can do. But what one person can do, I will do.' We can change the 'i' to 'we'.

In conclusion the participants requested to set up an online 'An Gáirdín Plastic Action Group.' We pledged to eliminate from our lives one plastic item each month. For the month of March we pledged to replace plastic water bottles with a glass bottle we can reuse, using tap water. Each month the group will vote on what will be the next item to eliminate. All welcome to join the group when we get it up and running.