

The salmon angling season closes in much of Ireland tomorrow so this is an opportune moment to take stock of the overall position of Atlantic salmon here.

I am always reminded of a concept that **Dr Daniel Pauly**, a world-renowned fisheries biologist, who stated that every human generation uses the images that they got at the beginning of their conscious lives as a standard.

They will extrapolate forward and the difference then is perceived as a loss but we do not perceive what happened before our time as a loss. This is largely where we are with Atlantic salmon.

We are now trying to sustain a miserable leftover which bears little resemblance to historic abundance and if we are truthful does not even come close to our own memories of what salmon rivers were like in our own time.

Comments like "the river is full of fish" must be viewed with a large degree of suspicion as our own perception of abundance is far from correct.

So where are the roadblocks to salmon returning in abundance to our rivers?

There are so many factors which can be put forward as to the reasons why our salmon stocks continue to decline. Generally speaking, man is the common denominator when we talk about decline, with both a direct and indirect impact caused by man's destructive interaction with the natural world.

Poorer water quality in our rivers, as evidenced by the recent Environmental Protection Agency Report (2017), is certainly alarming with our pristine rivers all but gone.

This is certainly a very negative position for our salmonid populations but is not unexpected as Ireland has experienced a substantial shift upwards in food production with changed land usage and disturbance increasing exponentially over the last number of decades.

The urbanisation and indeed industrialisation of our natural surroundings have had a significant impact, too.

The changes in land usage have certainly resulted in increased nutrients entering our rivers with subsequent negative effects on flora and fauna, but also our rivers have become more susceptible to siltation through degradation of river bank stability as a result of increased drainage to facilitate agriculture and development.

Acidic flushes through degradation of peatlands and coniferous forestry also affect our salmonid populations with some catchments now incapable of sustaining optimum production.

Certainly, there have been attempts to prevent pollution entering water courses with various agriculture/environmental schemes but these are at best window dressing and can sometimes have other undesired effects.

Fencing of narrow watercourses have certainly improved protection from nutrient transfer but have generally been negative in regard to tunnelling — where tree or shrub growth blocks light from a waterway — which limits juvenile salmon production.

The only way to address these problems is on a catchment wide basis with every artery of a catchment receiving a planned and structured intervention.

The issue of instream increased predation by cormorants and other invasive species like American mink has largely been ignored by all groups and is certainly having a devastating effect in some catchments.

As we move out to sea we are met with an environment which has drastically changed over the last number of decades.

We have enormous problems in the ocean, with man again responsible for the majority of these issues.

The survival rate of young salmon leaving our rivers has plunged from the 1970s, with return rates of adults then of up to 30% but now as low as 5%. The problems can be categorised as direct and indirect, which can be further stated as regional or global.

The direct problems relate to a number of issues in our own near coastal environment.

Salmon farming has been practised in Ireland since the mid-1980s and has had a devastating effect on both salmon and sea trout survival.

Recent research by Inland Fisheries Ireland in the Erriff River has demonstrated that when biomass and lice levels are high on salmon farms in the adjacent Killary harbour, a large reduction in marine

survival of juvenile wild salmon smolts exiting the harbour occurs with a reduction of up to 50% in returning adults and an even more devastating effect of up to 90% on seatrout.

In effect, there is in all probability a similar reduction in the majority of areas where salmon farms are located.

Salmon farming has always been contentious and both here and internationally there has been a concerted effort by the industry and indeed governments to champion this practice while ignoring the very obvious environmental effects.

The spectre of disease is always present and it is only a matter of time until these farms act as a vector and reservoir to transfer disease into the wider environment.

Already there is concern over amoebic gill disease which is caused by an amoeba which has become more prevalent in Irish waters over the last decade and which may be exacerbated by aquaculture acting as a reservoir for increased production and increased probability of transfer to wild fish.

There are certainly issues regarding seal and dolphin predation which may effectively be targeting wild salmonids, due to a diminishing and compromised near coastal ecosystem due to overfishing and climatic change, where traditional prey might not be quite as robust as before.

Further afield, high seas fisheries are another concern. Large fisheries now focus on traditional feeding areas of post-smolts and pre-adults. The emergence and extended migration to Nordic seas of Atlantic mackerel and herring may have been brought about by climate change but man has extended his fisheries to exploit those fish with the probability of bye catch.

One other point to be noted is that these fish may also be depleting the ecosystem of valuable zooplankton which in turn causes a cascade of effects in these areas.

We know that the Blue Whiting spring fishery adjacent to the Faroes has been responsible for increased catches of pre-adult Atlantic salmon. This is a staging point for Atlantic salmon on their return to Ireland and other areas so there is real potential for damage.

When drift netting was banned in

Ireland in 2007, there was a hope that Ireland would enjoy more salmon returning to natal rivers. This upturn has not materialised and indeed stocks as indicated by counter data have continued to decline.

Certainly, illegal fishing at sea does still take place and a situation still exists where instream poaching can be very harmful especially on stocks which are deemed to be below their conservation limit. The effect of illegal fishing cannot be underestimated.

This was a year of mixed fortunes in regard to salmon in Ireland with very few two sea winter fish (Springers) returning to our rivers.

The traditional early rivers saw little real activity until well into April with the period of January to March demonstrating a constant trend of decline in comparison to even a decade ago. The month of May saw increased catches of springers with early grilse featuring in a fair number of rivers.

There seemed to be a more vibrant run of grilse and summer salmon into the majority of catchments in June to mid-July in comparison to recent years. Thereafter there was a near collapse of fresh salmon and grilse entering rivers throughout Ireland which has shown no improvement throughout September.

This is broadly in line with our near neighbours in the UK thus demonstrating an overall collapse.

To restore an abundance of salmon to our rivers is probably not possible due to climate-related changes in the oceanic environment but we certainly can help by reinventing our relationship with the Atlantic salmon which must be viewed as a wonderful asset to this country and our natural heritage.

It is extraordinary that out rivers have little or no management in regard to habitat and water-quality issues and indeed rivers have no effective controls to preserve any semblance of conservation.

River trusts are being formed but without statutory powers and full-time, suitable staff will have little effectiveness. Certainly habitat and water quality can be improved by real designation of certain areas as refuges where habitat is protected by law and rewilding allowed take place to the benefit of all.

Salmon farming cannot be allowed to carry on in an unsustainable manner and must be biologically and physically separated from marine waters.

The most capable predator of salmon is man and as such we have a role to play in protecting this wonderful icon of our natural world. Our current regulatory regime allows anglers and commercial nets men kill salmon within certain limits but these are generous and maybe it is time to drastically limit our exploitation.

The statement near the start of this analysis still stands: "We are now trying to sustain a miserable leftover which bears little resemblance to historic abundance."

To change this situation requires bravery, foresight, and education and we need everyone's help to achieve this.

John Murphy is a life-long angler and a director of Salmon Watch Ireland

Link: http://www.irishexaminer.com/viewpoints/analysis/still-plenty-more-fish-in-the-sea-not-anymore-459910.html