

## SALMON AND SEA TROUT STOCKING IN WALES

### What has happened?

#### **Review of hatcheries and stocking**

In December 2013 Natural Resources Wales (NRW) reviewed its salmon stocking activities and associated hatchery operations. The review concluded that on the basis of scientific evidence the use of salmon stocking for enhancement and mitigation by both NRW and 3<sup>rd</sup> parties delivers poor outcomes for salmon populations and may have negative impacts.

#### **Public Consultation**

We carried out a public consultation from 4<sup>th</sup> March - 27<sup>th</sup> May 2014 to capture views and identify any other relevant evidence before deciding on the way forward. In the consultation we proposed that enhancement and mitigation stocking carried out by NRW and 3<sup>rd</sup> parties should cease, NRW should substantially reduce its hatchery capacity and redirect the resources made available into alternative mitigations to provide greater benefits to fish stocks and other wildlife. In addition, it recommended that NRW should explore the potential to develop NRW's remaining hatchery at Cynrig, near Brecon, as a fisheries and freshwater research centre.

#### **Consultation Feedback**

We received 112 responses expressing contrasting views. The majority (80%) of responses opposed our proposals to end enhancement and mitigation stocking and focus effort on alternative mitigation such as habitat restoration. The evidence base used in the review drew a great deal of comment although little new evidence was provided.

Some respondents were supportive of the use of habitat restoration whilst others thought habitat restoration alone would not provide sufficient mitigation and some questioned the evidence of its effectiveness. Other alternative mitigations were suggested but reservations were expressed about the availability, cost and 'deliverability' of the options on the ground. Some thought a freshwater research centre at Cynrig would be welcome whilst others thought one hatchery was not sufficient and they could not see the need for a research centre.

#### **Decision on way forward**

NRW Executive Directors reviewed the consultation feedback, the evidence for change and NRW's legal obligations on 9<sup>th</sup> September 2014. They concluded that on the strength of the evidence the recommendations of the review should stand and that stocking of both salmon and sea trout should end without delay. They proposed that this should be put to the NRW board for ratification on 2<sup>nd</sup> October 2014. The board agreed with the director's view and decided that the policy change should be implemented straightaway.

## Why has this happened?

### **Evidence**

Stocking has been widely used for over 100 years in an attempt to augment fish stocks. However, over the last 10 years there has been an emerging evidence base suggesting that the stocking of salmon and sea trout is not as effective as we once thought. Restoration stocking, used when populations are extinct or numbers are so low that local extinction is imminent, is viewed as effective over short periods if the reason for stock decline has been addressed. In addition, stocking for the purpose of scientific investigation is a valuable tool and is normally small scale, posing no risk.

### **Weakening of stocks**

Increasingly, scientific studies are concluding that enhancement and mitigation stocking are not effective. However, if stocking of this type is effective, in purely numeric terms and generates more returning fish than natural spawning, the risks from inbreeding and loss of local adaptations increase. Paradoxically, the more adult fish that return from a stocking scheme the greater the risk of genetic damage to the stock that can weaken it by reducing its ability to adapt to environmental challenges.

### **Status of stocks**

The 2013 salmon conservation limit compliance assessment for the 23 principle salmon rivers in Wales showed a marked downturn in the status of stocks with 15 'at risk' and 5 'probably at risk'. Although freshwater production is an issue in some areas a major concern is the decline in salmon survival during the marine phase of their life-cycle that may be linked to climate change. Therefore, now more than ever, we need our salmon stocks to be fit and healthy to face these challenges.

## What will happen now?

### **Fish currently held in hatcheries**

In the short term this policy change will mean that where salmon and sea trout are currently held in NRW and 3<sup>rd</sup> party hatcheries they will be used to complete the hatchery cycle and the fish will be stocked out before the end of 2015. The Mawddach and Maerdy hatcheries in North Wales will close and any ongoing commitments will be transferred to Cynrig hatchery near Brecon.

### **Alternative Mitigations**

Where mitigation stocking schemes will be coming to an end we will be meeting with those affected to discuss alternative mitigation options. We will work with local stakeholder groups to develop catchment mitigation plans that will provide greater benefits to fish stocks and wildlife. NRW will aim to work with stakeholders and partner groups to implement the alternatives over the shortest practicable timescale which may vary between catchments depending on the complexity of the work. The aim will be to complete the majority of the work before 31<sup>st</sup> Dec 2020.