

## Monthly Report – November 2022

### Loch na Croic Adult Fish Trap

Throughout November almost all of our efforts have been focussed on broodstock capture and egg production at the Loch na Croic fish trap. Conditions have been challenging with low water levels for most of the month and only two significant high flow events.

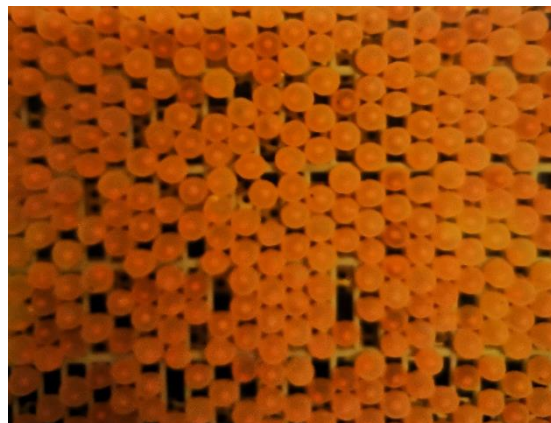
Our running total at the end of November was 431 fish caught with 202 hens and 229 cock fish. This is lower than we had hoped for but due to the good numbers of large hen fish, egg numbers put down in the hatchery have been acceptable. The ripening and stripping of the final fish in Early December will show how we stand for this years final egg count.

With the unseasonably high water temperatures in November and low flows, many fish have been arriving at the trap already infected with saprolegnia. We have been treating the holding tanks on a regular basis with Aquacen (formaldehyde) to try to keep the infection at bay. Fortunately, we have not lost many hen fish to the disease and we have thinned the tank densities throughout stripping. Most fish that remain are in good health and should be stripped and back in the river by mid December.



### Contin Hatchery

As it stands, at the end of November, we currently have in the region of 685,000 eggs in the hatchery. Eggs are generally in good condition with mortality well below 1%. The first eggs put down in the hatchery are now at 104-degree days, we will plant them out at around 250 degree days once the ova have eyed. This will see egg stocking on the Blackwater beginning in February.



## **Scotland River Temperature Monitoring Network**

Juvenile Atlantic salmon perform best when water temperature remains in the mid-teens. At 23°C juvenile salmon experience thermal stress and behavioural change, they may abandon territories in search of cool water refuge. Once the temperature exceeds 28°C Juvenile salmon will die.

As part of a Scotland wide river temperature monitoring project, there are 20 temperature loggers strategically placed throughout the Conon catchment. Not only do these loggers monitor the potential effects of climate change on river temperatures but, on the Conon in particular, they are able to identify any potential impact of impoundments on the water temperature.

The team have now retrieved data from all the temperature loggers throughout the catchment and have begun analysis of the data. All of the rivers in upland areas experienced multiple days where the water temperature exceeded 23°C. Temperature fluctuations are higher in these locations as the lower flows make the river more susceptible to rapid change. These extremes of temperature are buffered somewhat in the lower rivers due to the higher volume of water. The highest temperature recorded this year was 27.2°C immediately downstream of Glascarnoch dam.

Part of the study on the Conon aims to ascertain whether the cold-water outflow from Hydro dams could potentially mitigate against rising water temperatures during extreme events. With the exception of the Glascarnoch logger, mentioned above, in most locations this does seem to be the case as temperature loggers above dams were recording higher temperatures than those downstream.

## **Bailiffing Report**

The enforcement team continue to patrol the rivers within the district with regular checks on the Conon, Peffrey and Alness. Staff were also in attendance of a police liaison meeting with enforcement officers from other boards at Logie Steading. These meetings provide an excellent opportunity to engage with wildlife crime officers and other water bailiffs from the Moray firth region.

We are also pleased to advise that Geordie has passed his bailiff exam, the warrant card is in the post!