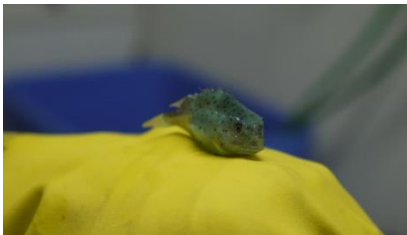


## OBJECTIVE

To create the need for a new product – Disease Screened Native Lumpfish Broodstock; to create Standard Operations Procedures specific to disease screened lumpfish broodstock; to generate publishable research data, leading to scientific publication aligned with the first objective above.



## OUTCOME

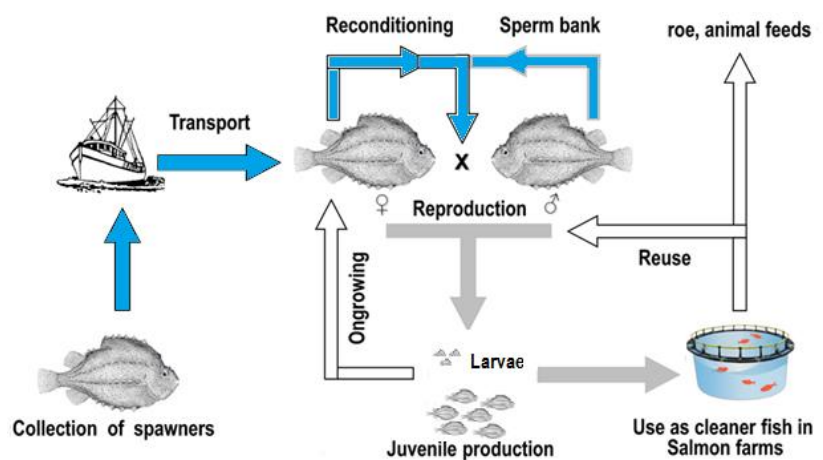
To disseminate the importance of producing and supplying the UK salmon aquaculture industry with Disease Screened Native Lumpfish.

## BACKGROUND

Lumpfish provide a service to the UK salmon industry - they clean salmon of sea lice. Both The Cleaner Fish Company and the Centre for Sustainable Aquatic Research believe that native lumpfish should be better adapted for use in UK waters. It is the aim of both partners to develop a way to collect native broodstock from UK waters (South coast and Scotland) and to screen them for important diseases.

## ACTIVITIES

The project will consist of the following activities: broodstock collection and transport; genetic disease screening; egg fertilization and incubation – blue arrows in the figure below.



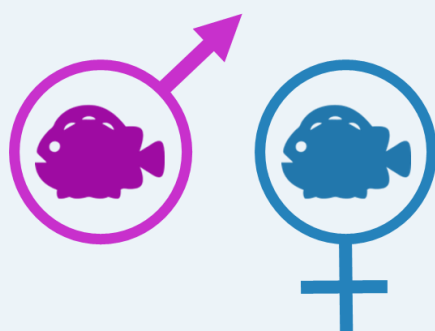
# NATIVE LUMPFISH BROODSTOCK

OUTPUTS FROM THE SMARTAQUA TEAM IN COLLABORATION  
WITH THE CLEANER FISH COMPANY



## 4 STANDARD OPERATION PROCEDURES CONTRIBUTING TO NEW PROCESSES

### LUMPFISH BROODSTOCK SOPs



1. Reception, Traceability and Screening
2. Stripping and egg fertilization
3. Milt extraction and storage
4. Sampling for pathogen screening

## 1 SCIENTIFIC PAPER CONTRIBUTING TO NEW PRODUCT



Whittaker BA, Consuegra S, Garcia de Leaniz C. 2018. **Genetic and phenotypic differentiation of lumpfish (*Cyclopterus lumpus*) across the North Atlantic: implications for conservation and aquaculture.** PeerJ 6:e5974

## NEW PRODUCT: DISEASE SCREENED NATIVE LUMPFISH BROODSTOCK

### 7 DISEASES SCREENED

1. IPNV Infectious Pancreas Necrosis Virus
2. ISAV Infectious Salmon Anaemia Virus
3. IHNV Infectious Haematopoietic Necrosis Virus
4. VHSV Viral Haemorrhagic Septicaemia Virus
5. *Pasteurella*
6. Lump sucker virus
7. Nucleospora

PRIVATE INVESTMENT

£39,000.00

EMPLOYMENT INCREASE

1

PARTNERS COLLABORATING

2



S.I.BARRENTO@SWANSEA.AC.UK



SMARTAQUA2



+44 (0)1792 602 030

WWW.SMARTAQUA.ORG.UK