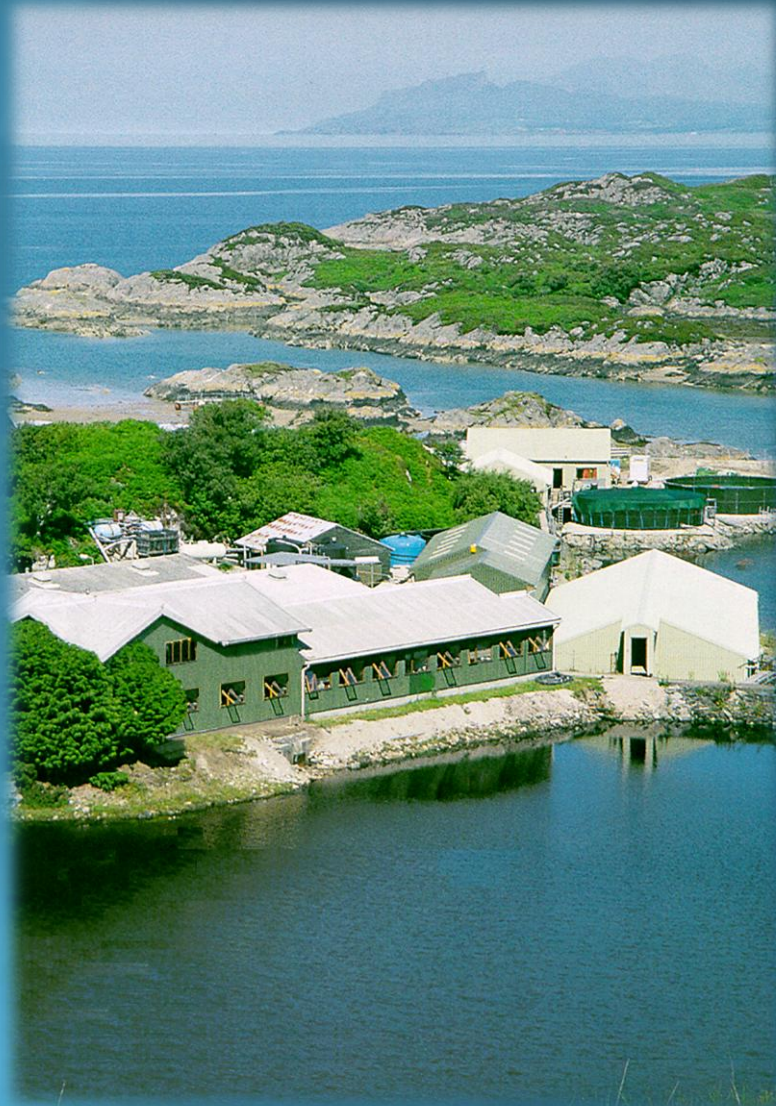


Ardtoe Marine Laboratory

Viking Fish Farms Ltd

*Driving innovation in Aquaculture and
the Marine Sciences*



Viking Fish Farms Ltd

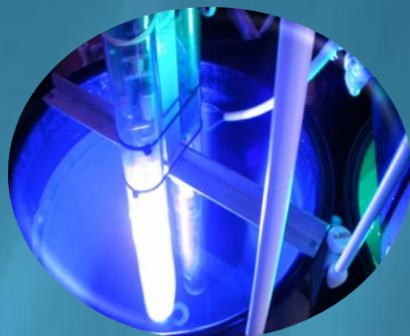
Ardtoe Marine Laboratory, Ardtoe, Acharacle, Argyll PH36 4LD, Scotland

Tel: +44(0)1397 709 270 | fax: +44(0)1967 431 343 email:

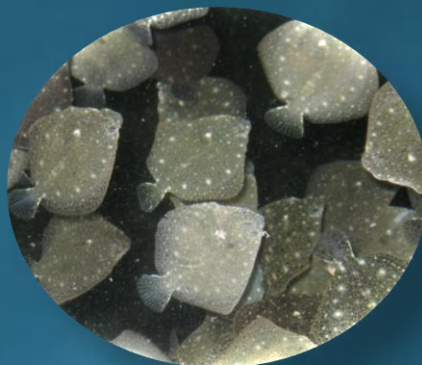
info@ardtoemarine.co.uk

www.ardtoemarine.co.uk also www.vikingfish.com

Our Activities



**Contract and
funded Research**



Fry production

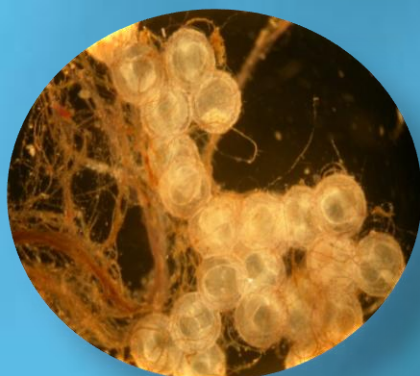
- Turbot
- Cod
- Sole
- Halibut



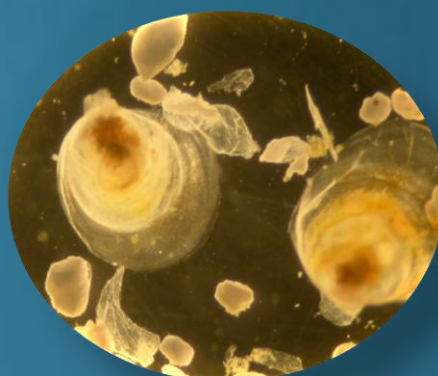
**Training and
consultancy**



**Wrasse “the
cleaner fish”
production**



**Biological
Supply**

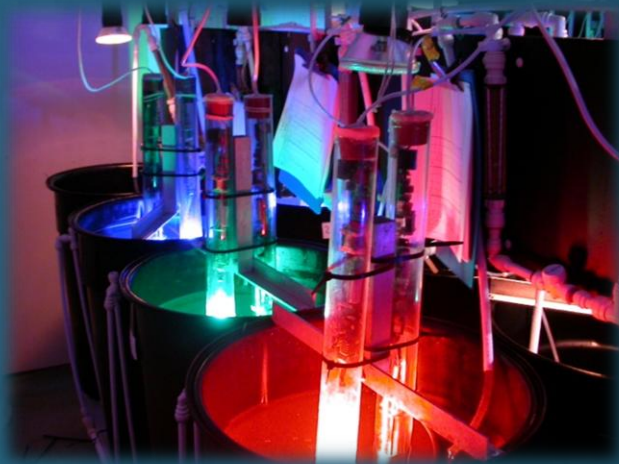


**Oyster and Urchin
production**

Aquaculture Pioneers

Since 1965 the Ardtoe Marine Laboratory has been internationally recognised as a world leader in the development of marine aquaculture, science and technology.

This continuing pioneering spirit and an ethos of innovation, makes Ardtoe today one of the most dynamic and diverse organisations within the marine aquaculture and biosciences sector.



Fish rearing expertise



Over the years Ardtoe has developed technologies for rearing a wide range of species new to aquaculture, the latest being the several species of wrasse that have been shown to act as cleaner fish that remove parasites from various host species. Of the several species being reared (ballan, goldsinny and corkwing wrasse) the ballan, being the biggest, has the greatest potential as a cleaner fish for salmon, whilst the goldsinnies may be suitable for cleaning the smaller species of marine fish being cultured in warmer waters.

Wrasse culture facilities



- Clean seawater, filtered to 10 microns and UV treated to kill potential pathogens
- Temperature and photoperiod controlled broodstock holding tanks set up to simulate the natural environment of adult wrasse
- Sterile water egg incubation system
- Large glassfibre larval rearing tanks with temperature and photoperiod control
- Large scale phyto- and zooplankton systems for the production of larval feeds
- Automated feeding systems

The cost effective solution to control sea lice

Using farmed wrasse is the cost effective, sustainable and environmentally friendly way to control sea lice infestations in farmed salmon, obviating the need for bath or in-feed chemical treatments. In addition, the long term use of wrasse prevents the development of such infestations occurring, ensuring that the survival, growth and market quality of the salmon is maximised with the minimum of effort and cost.

Of course in order to provide the maximum benefits whilst also ensuring the health and welfare of both the wrasse and the salmon in the cages requires careful management. With its wealth of practical experience in this area, Ardtoe is able to offer a full technical support service to farmers wishing to implement this new and exciting lice control technology.



Why farmed wrasse?

At present large numbers of wrasse are being harvested from the wild for use in lice control, but the sustainability of doing this in the longer term is highly questionable. So at Ardtoe we have gathered a small number of wild fish as initial breeding stocks, which have been quarantined and tested to ensure that they are completely disease free.

These fish now produce the eggs we use to hatchery rear large numbers of juvenile wrasse, thereby negating the need to take further fish from the wild. The plan for the future is to select the best hatchery produced fish as future broodstocks, closing the rearing cycle, thereby protecting wild stocks from further exploitation.



First and unique wrasse farmer in Europe

Our technology is the result of a three year multinational R&D programme funded by the EU's Northern Periphery Programme, which looked at both the hatchery production of wrasse and their use in salmon cages. As a result Ardtoe is in the unique position of being able to supply farmers not only with juvenile wrasse, but also advice on how to use and manage the wrasse to achieve optimal results.



An Eco Friendly treatment



As the use of wrasse obviates the need for biocidal chemical treatments and, thereby, the risks that such chemicals or their metabolites might find their way into the food chain, wrasse offer organic farmers the only real way of controlling ectoparasites on their stocks without compromising their organic status.

Contact information

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