AQUACULTURE
Sustainable Aquaculture

Focusing on long term Resilience and Sustainability of the Sector and improved Aquatic Food Security our work is strongly integrated across the group and encompasses environmental modelling, carrying capacities, spatial analysis, biodiversity and new species, international development, securing and improving fishers' livelihoods, value chains and life cycle assessment.

Spatial Analysis and Applied Physiology:
With a focus on the Ecosystem Approach to Aquaculture, our GIS and RS work includes the strategic evaluation of regions for aquaculture development, addressing site selection, zoning, carrying capacity, impact, climate change, productivity and coastal zone modelling. We have strong linkages with Latin America, especially focusing on native species, and with many international partners where we have also conducted extensive capacity-building activities.

Aquatic Resources and Development:
Our starting point is the understanding of aquatic production systems, and increasingly the sustainability and resilience of wider aquatic resource systems which are manipulated for food production, financial gain, ecological quality, aesthetic value and human livelihood. We focus on defining the goal, be it commercial aquaculture, pro-poor, acceptable multiple-use resource management, or ecosystem health, incorporating a range of tools and areas of expertise.

Environmental Sustainability:
We actively research environmental sustainability of aquaculture production and development, focusing on development of modelling tools to investigate environmental effects and sustainability, and also studies on the environmental effects of agrochemicals used within the industry. This work naturally links with our the other main areas and can be associated with both spatial analysis and aquatic resources development

Environmental Modelling:
We use a wide variety of model approaches to make sense of the ecological processes underlying aquaculture systems, predicting the effects of aquaculture on future ecological processes and, importantly, measuring the limits of our power to make predictions. Trophic analysis reveals interactions of wild and farmed species and population dynamics, providing us with a way to manage systems sustainably and lower risk.

Support Services:
We also offer analytical and support services linked to environmental quality, management and regulation.

For further information on Sustainable Aquaculture contact aquaculture@stir.ac.uk   or tel +44 (0)1786 467874

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RESEARCH THAT SHAPES AND IMPROVES LIVES