

Pablo García describes how Stolt Sea Farm has joined with Spanish fishermen to restore turbot and sole to "Os Miñarzos" Marine Reserve.

SSF in unique support agreement

Human demand for fish and fish products has created a crisis in the world's oceans. According to one major study published in the journal *Science*, if current trends continue, commercial fishing will cease to exist by mid century – because there will be nothing left to catch.

Despite the grim picture painted by the study overall, researchers emphasised that both marine biodiversity and fish stocks themselves could be substantially protected by increasing the number of marine reserves and no-catch zones on a worldwide basis.

Aquaculture is another effective way of reducing pressure on wild stocks. The Food and Agricultural Organization (FAO) of the United Nations reports that aquaculture is the fastest growing sector of food production, with more than 440 species of fish, invertebrates and aquatic plants

currently being farmed. Aquaculture now generates roughly 50 per cent of the fish consumed worldwide, with significant growth potential remaining.

As one of the world's leading high-tech aquaculture companies, Stolt Sea Farm (SSF) is at the forefront of this rapidly growing industry. It is also a company that takes seriously its responsibility to protect the environment. As part of a recent agreement with a local fisherman's association, SSF is combining its high-tech expertise with its commitment to

environmental conservation by helping restore wild stocks of turbot and sole near its aquaculture facility in Lira, Spain.

SSF was approached by the Fishermen's Association of Lira some time ago with a proposal. The fishermen had joined together to establish the Os Miñarzos Marine Reserve, in the hope of re-establishing stocks of fish that had once been plentiful along the coast. Turbot and sole were among the species that had largely disappeared and we were eager to help.

Under the agreement with the association, SSF will provide both turbot and sole juvenile fish. The fish will be released into the reserve and monitored closely by researchers, in the hope that viable and

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was releasing was as pure and, in some cases, even more so than the water being taken in. No tax was assessed. In fact, we determined that if the model proposed by the authorities had been equitably implemented, the authorities would have owed us money!

Ongoing research aimed at monitoring the reserve will ultimately determine if the experiment is a success. In the meantime, both the fishermen and their partners at Stolt Sea Farm have high hopes.

If successful, this project will benefit the fishermen and their families here in Lira,

SSF's aquaculture facility in Lira, Spain. The facility is located on the furthest peninsula of the bay.

BOTTOM RIGHT: Juvenile turbot fish: Under the agreement SSF will release juvenile turbot and sole in the hope that sustainable populations can be rebuilt.

sustainable populations can be rebuilt. The turbot programme is already under way, with the sole programme to commence this year.

The area designated as the reserve was carefully selected by the fishermen themselves for its optimal conditions. The reserve is a fully protected area, meaning that access is strictly limited, to minimise human impact on both the environment and the fish.

One of the interesting features of the reserve is the presence of the outlet pipe from SSF's Lira fish farm. The Lira facility uses substantial quantities of salt water, which is drawn from the sea, circulated at the farm and then returned to the sea via the outlet pipe. The water is carefully filtered to remove fish waste and other materials before it is diverted to the outlet pipe.

SSF had been contacted at one point by local authorities who said that the farm would be taxed for the water it uses, by measuring the quality of the water taken in and comparing it with that of the water released. The tax was to be based on the additional waste discovered in the water being released. After the tests were conducted, the officials were shocked to discover that the quality of the water SSF



who live side by side with many of SSF's employees. Beyond that, the knowledge SSF gains here may prove useful in other parts of the world where similar efforts are under way to attack this problem. We are confident that our efforts will enable us to give back to our community and I am hopeful that the results will contribute in some way to a broader solution to this crisis.

Pablo García is President of Stolt Sea Farm.

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