



European
Commission

Improving the selectivity of trawl nets

Spain

Murcia FLAG brought fishers and scientists together to pilot new trawling gear, to improve the sustainability of red shrimp fisheries.

The fishers' association of Mazarron, Murcia, learnt that a new trawl net, the T90, was being used in Catalunya. With a mesh size of 50 millimetres instead of 41 millimetres, they had heard this gear resulted in more sustainable captures and reduced fuel consumption. The association approached the FLAG for support to try the nets in their area and to study the impact of the T90 on their fishing activity.

With a grant from the FLAG, the fishers' organisation hired a regional consultancy specialised in fisheries studies and marine biology to undertake a comparative study of red shrimp fishing with their traditional trawl net and red shrimp fishing with the T90 net.

The project involved the purchase of the experimental net and its use for 12 consecutive days fishing, back-to-back with 12 days fishing with the traditional net. The pilot fishing and control fishing were done as closely as possible to ensure the state of the fishing

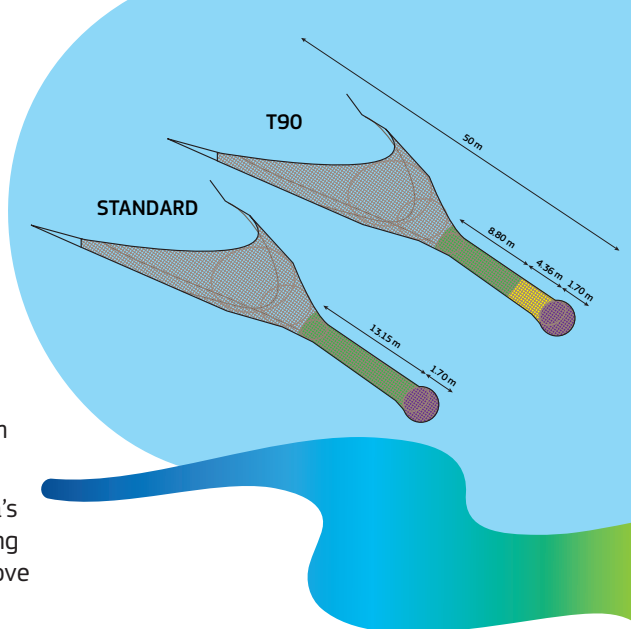
ground and the weather were homogeneous. The scientific staff joined the fishing crew onboard for nine of the days. The final stage involved analysis of the data and preparation of a [report](#).

After 24 hauls (12 with each net) and the sampling of 5 055 individuals, the results of the study were conclusive. They pointed to fewer juveniles being caught, demonstrating better selectivity and therefore improved sustainability of red shrimp fishing. At the same time, the higher proportion of larger specimens caught resulted in a higher commercial value of the catch, meaning that fishers could increase their income without the need for larger catches.



Results:

- The T90 net was shown to catch 15-28% less small shrimps (under 18mm) than the traditional net.
- The weight of the catch (kg/hour) was practically the same for both types of net, however the T90 net caught fewer small specimens and more large specimens.
- The catch from the T90 obtained 6.2% more income than the traditional net, given the greater proportion of larger individuals with a higher value.
- Fishers have been mobilised and momentum generated for the area's fleet to start adopting T90 nets and study other innovations, including gear with 'flying doors', whereby the trawl remains at a distance above the seabed, preventing by-catch and damage to eco-systems.



Transferability and Tips:

This project was led by the fishing sector. This was made possible thanks to prior information and outreach by the Murcia FLAG and the contacts it fostered between the fishers' association and the research sector. Close working relationships between fishers and scientists can be nurtured by FLAGs around Europe to develop more environmentally sustainable fisheries.

Do:

- Ensure research is user-driven and the results have practical application;
- Make sure the sector is fully committed to the project so that findings are more likely to lead to real change;
- Involve the sector when designing the methodology of the pilot, this will help ensure it is tailored to their needs and compatible with their schedules.

Don't:

- Expect implementation in the short term! The decision to investigate measures to improve sustainability, the assimilation of the results and the mentoring cannot be done in one year;
- Forget to disseminate the results of the study appropriately;
- Underestimate the need for ongoing support and mentoring after a pilot to ensure its results and recommendations are put into action.



Quote from project promoter/beneficiary

"The T90 mesh piece reduces the catch of juveniles, which together with its low cost, easy handling by the crew, low environmental impact, and no reduction in the quality of the fish, makes it an ideal measure in the sustainable management of red shrimp fishing grounds".

Pedro Martínez-Baños, biologist in charge of the study.

Project cost and funding

Total project cost: €20 700

FLAG grant: €20 700 (100% of total project cost)

Implementation duration

November 2021 – September 2022

Beneficiary

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