

# Fragrant attraction brings fish to the hook

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Norwegian scientists have been utilising odours from the ocean's larder to develop a cream that can be smeared on fishing gear like these to attract more fish to the bait. Credit: Morguefile

The Norwegian research institutes NOFIMA and SINTEF and newly launched company Polybait have been utilising odours from the ocean's larder to develop a cream that can be smeared on fishing gear to attract more fish to the bait.

"There already exist several baits with odour attractants on the sports-fishing market, but there is no scientific proof that these actually work," says senior scientist Sten Ivar Siikavuopio of the food research institute

NOFIMA.

"But can you document such an effect for the cream that you have helped to develop?"

"Yes, we certainly can."

## **Sports fishers and professional fishermen**

The cream is aimed at both the sports-fishing and professional markets.

According to Polybait's founder Svein Kvalvik, the cream will be targeted at fly and spinner anglers, as well as professional long-line and hand-line fishermen.

Kvalvik explains that the cream is a [byproduct](#) of a major project, in which Polybait, NOFIMA and SINTEF are developing odour-rich synthetic baits for the autoline fleet with financial support from the Research Council of Norway.

## **Early earnings**

If the mother project is successful, it will no longer be necessary to use fish that we could have eaten as bait on autoline fishing vessels. These boats will also save the energy and space currently needed to freeze and store bait on board.

If the new cream is successful, the recently established Tromsø company Polybait will be [earning money](#) even before the autoline project has come to an end.

## **Uses biological "leftovers"**

According to NOFIMA's Sten Ivar Siikavuopio, the two projects share a common point of departure; a Norwegian research result that demonstrated that cod are able to detect odour [molecules](#) at a distance of as much as 700 metres.

NOFIMA, the largest institute in industry-oriented R&D aimed at aquaculture, fisheries and food, was responsible for closing in on the odours that Polybait is using. For the purpose, the institute made use of "leftover" raw materials from the fishing industry.

## **The smell of prey**

The results include three different creams; one for cod, another for halibut and a third for salmon. The odours are extracts of the prey of the individual species.

"We started out from what we know that these fish like. For the cod, we did a particularly thorough job with a series of tests in tanks," says Siikavuopio on the telephone from NOFIMA's Tromsø headquarters.

## **Advanced packaging**

The thickening agent that makes it possible to smear on the odour in the form of a cream was developed more than 1000 kilometres south of Tromsø, at SINTEF in Oslo. Ferdinand Männle, marketing director at SINTEF Materials and Chemistry, tells us that the Institute has resolved several challenges at the same time.

"We gave the cream certain properties that allow it to be broken down in water over a long period of time. This was in order to prevent the [fishing gear](#) from continuing to attract fish for ever if the line should break. At the same time, we do not allow the cream to dissolve TOO rapidly in the

sea. After all, there would be no point if the odour was washed off soon after the line was paid out into the sea. Research scientist Huaitian Bu has played a central part in balancing the requirements.

"We have also made sure that most of the cream can be made from renewable resources."

## **Ten per cent more fish?**

Polybait's founder, Svein Kvalvik, is now ready to begin marketing the cream.

"Do you think that some sports fishermen will complain that it is cheating, and unfair to the fish to use [odours](#) as attractants?"

"It's quite possible."

"Could there be fights in salmon rivers if people believe that the salmon have been lured past their stretch by attractive smells?"

"All I can say to that is that it would be super if anyone managed to raise their catch rates by ten per cent with the aid of our cream."

"So any "injured parties" would still be left with ninety per cent of their own chances?"

"Just so," chuckles Svein Kvalvik.

Provided by SINTEF

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