

## HOW WELL DO YOU KNOW YOUR FISH SUPPER?

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Centre for Environment Fisheries & Aquaculture Science

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To manage fish stocks successfully, a detailed understanding of where fish are located at different times of year is important. This has been an ongoing challenge for marine scientists, because the opportunities to observe fish directly in the vast and often hostile marine environment have often been limited.

To address this problem. Cefas in 1994 conducted a world-first experiment by using electronic tags to observe the movements of freely swimming sea fish. The Cefas designed and built tags recorded detail information on how European plaice move hundreds of miles between feeding and spawning areas. More tags deployments followed, and a landmark paper on the migration of plaice was published in the prestigious scientific journal Nature in 1997, the year of Cefas' inception. In the 20 years since, Cefas has continued to develop and deploy tag technology, with increased sophistication and a broader range of uses with each new generation.

The range of species studied by Cefas has expanded to include eels, sharks, cod, seabass and even edible crabs. Many of our discoveries and their applications have been documented in leading scientific journals and featured in national news media. Our tagging work has been used to inform fisheries management, to predict the potential impacts of climate change on fish stocks, and to track the interactions between fish and renewable energy installations (e.g. wind turbine arrays).

The current generation of tags record not only the fish's immediate environment, but also its posture, energy use and speed, which Cefas are using to understand how wild and aquaculture-reared fish respond to stress. Cefas electronic tags are now routinely used not only by fisheries scientists internationally, but also by researchers interested in the behaviour of birds, reptiles and mammals.



For more information please visit: http://bit.ly/2C1YHw5