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Scientists Manage to Adapt Juvenile Blue Fin Tuna to Captivity in Land Installations

Research scientists Fernando de la Gándara and Aurelio Ortega, along with technicians Juan Ramón Prieto and Javier Viguri from the tuna culture team at the IEO, have managed to adapt around twenty juvenile bluefin tuna (Thunnus thynnus), to captivity in land based facilities at the Plant for Marine Culture at the Murcian Oceangraphic Centre.

This adaptation had already been successfully achieved in Japan, in Australia and in the USA, in other species of tuna such as the Pacific bluefin tuna (Thunnus orientalis), the southern bluefin tuna (Thunnus macœyii), the yellowfin tuna (Thunnus albacares) and the blackfin tuna (Thunnus atlanticus) but never with the Atlantic bluefin tuna (Thunnus thynnus) making this a European first.

Some of the individuals were captured with a barbless hook and line just in front of the wast of Mazarrón, and transported directly to the Marine Culture facilities of the IEO in Mazarrón. Others were captured in front of Cabo de Palos and previously adapted to captivity in floating cages situated in the bay of El Gorguel, managed by the company Caladeros del Mediterráneo belonging to the Ricardo Fuentes group, prior to being transported to the IEO installations in Mazarrón. The survival rate in the first case was 70% while in the second case it was 100%, fundamentally due to the fact that in this second case the individuals had already been

adapted to captivity in the cages. The twenty juveniles, each of around a kilo in weight, have been housed over the past two weeks in a fibreglass tank 8m wide x 2m deep. They are being fed with fresh anchovy and sardine pieces and show very active feeding behavior.

Handling of this species is extremely difficult given it's great sensitivity and the fact that it is a pelagic fish that is accustomed to living in an open-water environment, where no obstacles exist. The techniques employed in the adaptation of the bluefin tuna individuals to captivity at the land facilities will be used in the TANQUE project, cofinanced by funds from FEDER and headed up by Aurelio Ortega. This project will equip the IEO with a large single installation for the reproduction of bluefin tuna, whose main element will consist of a tank of 25m in width and 12m deep, which will house bluefin tuna broodstock whose main objective will be the obtaining of viable eggs from this species.