Producing *Platax* in Tahiti – goals and challenges!

Tahiti Fish Aquaculture (TFA) is the second* Platax *fish farm set up in French Polynesia since 2011. The farm is located on the Tahiti Peninsula on the island of Tahiti, near the village of Tautira. Thomas Launay, Production Manager and associate of the farm's owner, Eddy Laille, talked to us about his experience.

Platax orbicularis (locally known as *paraha peue*) is a fish that has become scarce in French Polynesia, particularly due to overfishing. It is very popular with the local community because of its taste and the texture of its meat. So it was a perfect candidate for relaunching the virtually non-existent fish farming sector in French Polynesia.

The farm's goal is to produce consistently high-quality local lagoon fish on a regular basis over the long term. This project is an excellent example of responsible and sustainable development, both economically and in terms of the environment, since it integrates and preserves the ecological assets of French Polynesia's lagoons by minimising the effects production has on local aquatic ecosystems.

Since 2011, TFA has been producing *Platax* in floating cages in the lagoon. We have five floating high-density polyethylene cages that are 12 m in diameter and 7 m deep, for a total volume of about 800 m^3 each.

The fingerlings come from the territorial hatchery, VAIA, and are put in cages once they weigh about 8 to 10 g, in small 50 to 100 m^3 modules (nursery phase). They are then transferred to 800-m^3 cages for the grow-out phase. The initial density when they are placed in the cages is about 170 fingerlings per m^3, i.e. 1.7 kg per m^3, and the final density is about 12.5 kg per m^3. So the idea is to grow-out *Platax* in low densities so as to avoid problems related to high fish concentrations, such as opportunistic bacterial and parasite infections, and ensure the production of high-quality fish. The feed we use is extruded "Ombrine Grower', which is produced by the company Legouessant, in Brittany, France. We use it because it has good nutritional characteristics, high digestibility and is made of proteins of plant and marine animal origin. However, we are working on producing local feed, which would be easier to get. The fish are fed two or three times a day, depending on the growth phase. The feed conversion index is currently between 1.5 and 2, for fish raised to a weight of about 1 kg.

Platax orbicularis *is considered a delicacy in French Polynesia (image: T. Launay).*

Up to now, the major challenge has been the cage construction phase. It was difficult to bring in heavy equipment because there is no road to the site, so all transport had to be by sea. Luckily, the seaway between the village of Tautira and the farm is completely protected by the barrier reef (inside the lagoon), so it is navigable in all weather conditions.

The most critical phase of *Platax* farming is transferring the fingerlings from the nursery to the grow-out cages. The farm has experienced very high mortality (nearly 90%) over our last three cycles. This mortality is probably due to opportunistic bacterial infections, e.g. *Vibrio harveyi* and *Tenacibaculum maritimus*. The phenomenon begins a few days after they are placed in the cages and lasts for at least 30 to 40 days. So our current priority is to work in partnership with territorial and regional research agencies and with other fish farmers in French Polynesia to try to resolve this problem of massive mortality that is a real threat to the future of our farm and, more generally, to the aquaculture industry in French Polynesia.

Aside from that critical phase, TFA does not have any major problems for the moment. Some farms in French Polynesia are bothered by parasites, e.g. *Neobenedenia* sp., and have to institute disinfection protocols. However, this has not been the case for TFA farm so far. Moreover, it would seem that the strategy of raising the fish in low densities is the reason behind these good results in terms of parasites.

To conclude, TFA produced about 2 tonnes of *Platax* in 2011 and hopes to produce about 6 tonnes in 2012. TFA's goal is to produce 40 to 50 tonnes of *Platax* each year in the future.

A: The farm five cages are moored inside the lagoon, close to shore. They are protected from oceanic waves by the barrier reef, visible in the background;

B: One of the five 800-m³ cages;

C: Platax *are individually weighed, vacuum-packed and labelled for the local market.*

(Images: T. Launay)

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