

19-AQUACULTURE

Prawn farming is the main activity in New Caledonian aquaculture, although the sector has diversified since 1999 with the introduction of two new industries, **oyster** and **freshwater crayfish farming**.

Prawn farming began in the early 1980s, subsequent to research undertaken by IFREMER to determine the most appropriate species, reproduction techniques, and farming methods. The species chosen was ***Penaeus Stylirostris***.

The prawn industry has grown over time, and today is the second largest New Caledonian export earner, a long way behind nickel, but still in first position in terms of agricultural exports. In the 2004/2005 season, the industry generated an estimated 23 million Euros turnover, of which approximately three-quarters in export sales. Although the industry accounts for less than 1% of GDP and employs about 300 people directly, it does generate indirect employment for approximately 1 000 people.

Vertically integrated and organised around the **GFA**, the industry comprises **provendors**, hatcheries producing post-larvae, production farms, and two processing factories inaugurated in 2005, one at Koné (**SOPAC**), and the other at La Foa ("Pénéde de Ouano", belong to the Braun Ortega group). Sopac's previous factory, located in Nouméa, closed in early 2006.

IFREMER continues to provide scientific and technical support as part of ongoing partnerships with the State and local collectivities.

Furthermore, financing of new aquacultural farms is encouraged through **tax exemption** measures and **ERPA**. In view of the 2003/2004 season results, and to assist the prawn industry, ERPA paid out approximately 427 thousand Euros in various forms of aid (exports, transport) and in funding the industry's economic observatory. This assistance is critical for an industry that is fragile and subject to strong international competition. The New Caledonian prawn industry goes to great lengths to promote its "**Atout Qualité Certifié**" label, positioning itself in the superior quality market segment.

▶ **Oyster farming.** Production comes from a single farm. 84 tonnes were harvested in 2005, being 88 125 dozen (excluding other small-scale catches) ; 89 tonnes of oysters were imported for the same period.

▶ **Freshwater crayfish.** This form of aquaculture began in 1999, and there are now 32 farms located at Boulouparis. In 2005, 9.3 tonnes of freshwater crayfish were sold, for a total value of 134 thousand Euros.

▶ ***Penaeus stylirostris*.** Blue prawn originally from Central America, introduced into New Caledonia in 1981. The species is of particular interest for its excellent growth and adaptability to the New Caledonian environment.

▶ **GFA.** The aquacultural farmers group is a non profit organisation established in 1993, providing a forum for dialogue and discussion among producers. It has several responsibilities : economic observatory, technical oversight and evaluation, various studies, management of group purchasing, support for applied research, training... Since 2001, it has managed FICE (Prawn Exports Intervention Fund) to ensure the future of the export industry.

▶ **Provendors.** Prawn feed suppliers. The food, which accounts for some 40% of a farm's costs, is a determining factor for the speed at which the animals grow, their average weight, and accordingly the price at which they are sold to the processing factory.

▶ **SOPAC.** The New Caledonian aquaculture producers company receives, processes and markets the production of the majority of New Caledonia's aquacultural farms.

▶ **IFREMER.** This French research institute for exploitation of the sea is a public research and development organisation with a maritime vocation.

▶ **Tax exemption.** See 16.2.

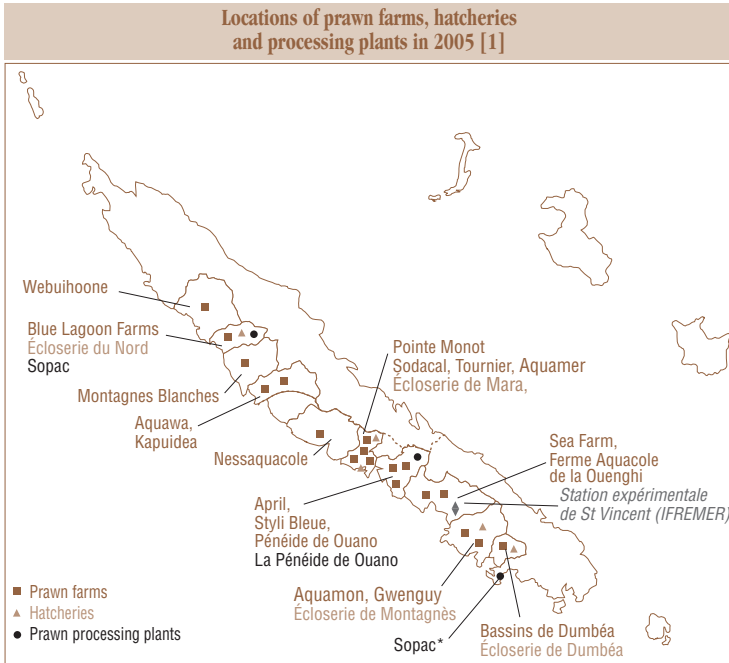
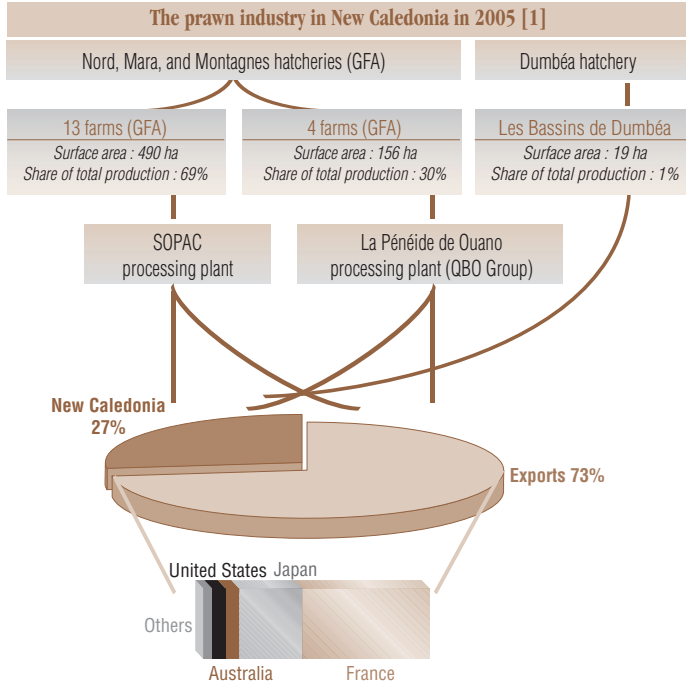
▶ **ERPA.** See 18.3.

▶ **Atout Qualité Certifié.** Quality assurance label.

SOURCES

[1] Groupement des Fermes Aquacoles (GFA), Rapports d'activité annuels. ISEE-CAFAT, données relatives à l'emploi salarié dans l'aquaculture.

19.1 OVERVIEW



* Plant closed in early 2006.

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The first phase of prawn farming is the production of **post-larvae** (180 million post-larvae produced in 2005), destined to become either the future breeding stock, or directly placed into the fattening ponds of **prawn farms** (sowing).

19 farms covering a total area of 665 ha were in operation for the 2005/2006 season, as opposed to 4 farms in 1985 (70 ha), 5 in 1990 (219 ha) and 10 in 2000 (451 ha), an illustration of the energetic development of the industry in recent years.

Production accordingly amounted to 2 339 tonnes in 2005, continuing the strong growth of the industry since its inception : 95 tonnes in 1985, 540 tonnes in 1990, and 1 723 tonnes in 2000.

Approximately one-quarter of production is **consumed locally**, and the rest is exported. Exports have grown considerably, with 1 709 tonnes of prawns exported in 2005, as opposed to 1 253 tonnes in 2000, 282 tonnes in 1990, and 13 tonnes in 1985. Prawn sales amounted to 19.3 million Euros in 2005.

Two countries purchase over 80% of New Caledonia's prawns : France is the premier market, with a share of between 30% and 60% of production in recent years, followed by Japan, where sales have increased over the last five years, fetching higher prices than the other markets. Australia has traditionally been the third largest market, however sales have been on a downward trend, while at the same time sales to the United States have developed in recent times.

New Caledonia represents less than 0.2% of the **world prawn market**. The market is currently undergoing significant change, with increased production, falling prices, overall improvement in product quality, and more assistance from governments in competing producer countries.

In order to improve the genetic stock of the New Caledonian "breed", now 30 years old, a Hawaiian strain was imported in 2005 by **UPRAC-NC**.

► **Post-larvae.** In New Caledonia, the entire life cycle of farmed prawns is controlled, and no prawns are taken from the natural environment. Post-larvae are prawns about 10 days old, produced in the four hatcheries supplying the industry. Post-larvae are a critical element for local prawn farming, with particular attention being recently focused on quality improvement and especially quantities produced, through investment and restructuring carried out in the hatcheries.

► **Prawn farms.** The growth period, which lasts approximately 7 and-a-half months, is shorter in the hot season and slightly longer in the cooler season.

Farms are identified in three categories : family farms of less than 20 hectares, of which there are seven, farms described as medium-size, from 20 to 60 hectares, of which there are 10, and the major farms over 60 hectares, of which there are 2.

► **Local consumption.** The New Caledonian market absorbs approximately 600 tonnes of prawns per year (or 2.6 kg per inhabitant) ; at this rate of consumption, New Caledonians are among the world's biggest consumers of prawns.

► **World prawn market.** The main competing prawn producing countries in the world market are all countries where production costs are low, such as Thailand, Ecuador, Mexico, India, China, Indonesia, Vietnam. Madagascar and Brazil offer strong competition for the territory because these countries produce and export a prawn that is comparable to New Caledonian production, and they are able to supply the European market at a lesser cost.

► **UPRAC-NC.** Unit for the promotion of aquacultural farmed prawns in New Caledonia, established in 2003, with a membership of 3 hatcheries and 9 farms.

SOURCES

[1] Groupement des Fermes Aquacoles (GFA), Rapports d'activité annuels.

[2] Direction Régionale des Douanes de Nouvelle-Calédonie (DRDNC), données relatives aux exportations.

SEE ALSO

Institut de la Statistique et des Études Économiques (ISEE) : www.isee.nc

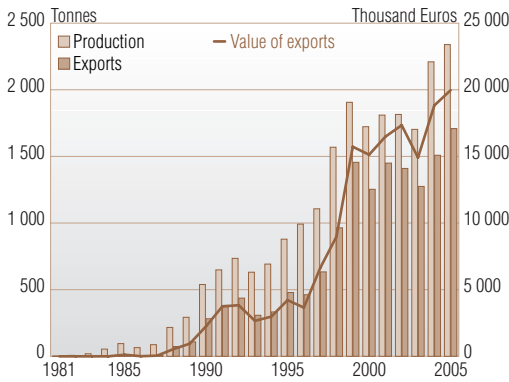
Direction Régionale des Douanes de Nouvelle-Calédonie (DRDNC) : www.douane.gouv.nc

19.2 AQUACULTURAL ACTIVITY

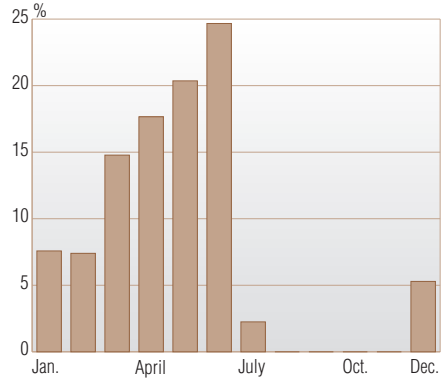
Prawn farming industry in New Caledonia [1 and 2]

	1981	1985	1990	1995	2000	2001	2002	2003	2004	2005
Production capacity										
Surface area of farms (ha)	10	70	219	358	451	465	472	524	655	665
Production										
Hatcheries (millions of post-larvae)	na	na	e 80	107	126	144	108	155	186	e 183
Farms (tonnes of prawns)	2	95	539	879	1 723	1 810	1 815	1 703	2 210	e 2 339
Exports										
Prawn exports (tonnes)	-	13	282	479	1 253	1 450	1 410	1 275	1 509	1 709

Prawn production and exports [1 and 2]



Monthly production of farms* in 2005 [1]



* Estimates of deliveries per month from all farms in relation to total tonnage delivered to processors.

Prawn exports by destination [2]

