



# History and prospects of French-Japanese collaboration and friendship in oyster farming



カキ養殖における日仏協力と  
友好の歴史と展望  
小池 康之、關哲夫



←  
*Oyster park at Arcachon, France*  
アルカッションの養殖場



→  
*Oyster park at Oku-Matsushima,  
Japan 奥松島の養殖場*



*October 2023 at Caen*

*Yasuyuki KOIKE (Société franco-jaçponaise d'Océanographie)  
Tetsuo SEKI (Japan Fisheries Science and Technology Association )*



## The French adore oysters フランス人はカキが好き



Les déjeuner d'huîtres,  
by Jean-François de  
Troy, 1735

かきのある食事  
ジャン・フランソワ・トロ  
ワ



*In France, from the 18th century (left) to the present day (right),  
oysters are enjoyed Raw and Alive.*

フランスでは18世紀の昔（左）から現代まで（右）カキを生で  
しかも生きたままで賞味する



The Japanese adore oysters also 日本人もカキが好き



Mainly shucked oysters and cooked

主流は剥き牡蠣と加熱調理



hot pot dish with Miso 土手鍋



fried oysters  
カキフライ



steamed Oysters 蒸しガキ



Spaghetti カキのスパゲッティ



Vinegared 醋がき



My first *Ostrea edulis* at Belon, Bretagne, 1973



## *Culture of seed oysters at Mangoku Ura, preparing transportation to France*

フランスから依頼を受けた種ガキの種苗生産（万石浦）



In charge of both countries:  
late Prof. Takeo Imai of Tohoku University.  
Representative of the French Embassy in Japan

両国の責任者：故・今井丈夫東北大教授、  
在日フランス大使館代表者





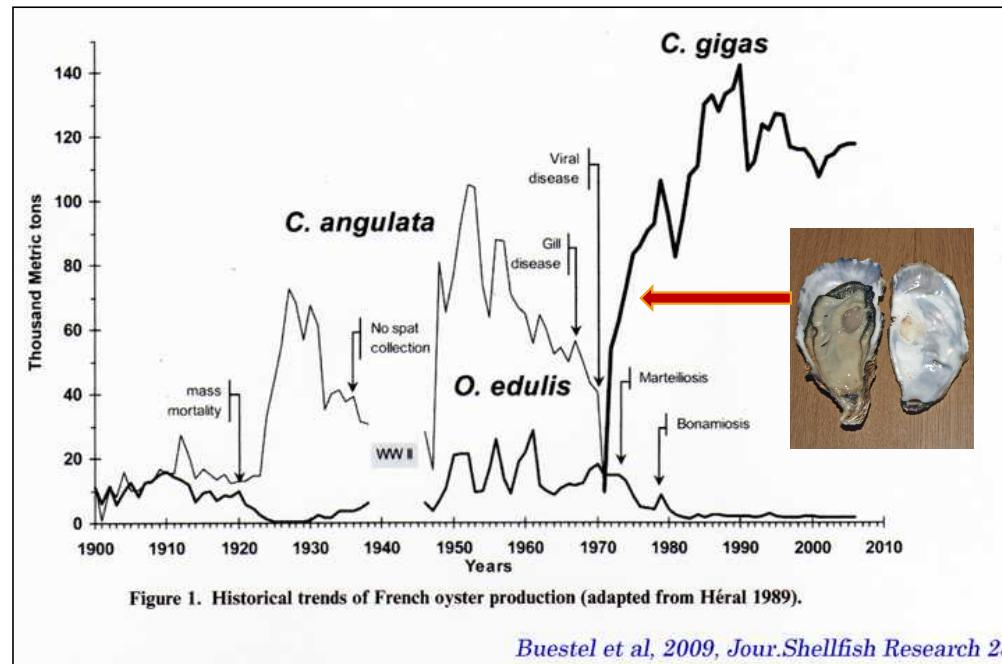
SHIPPING AND TRADE NEWS, MONDAY, FEBRUARY 24, 1969



A Scandinavian Airlines DC-8 Super-Fan left Haneda fully loaded with ten million oyster seeds for Paris via the North Pole Feb. 19. This follows a trial shipment (300,000 pieces), by the same carrier on Feb. 8, resulted with this bulky shipment by chartered plane. Raised in the sea along the Ogino-hama Beach in Miyagi Prefecture, each seed in a shell is very tiny. Oyster seeds produced in the United States were shipped to the United States by sea for many years in the past. Strict regulations in France regarding import of oyster seeds so far hindered shipments from Japan. The "Ogino-hama" oyster seeds also passed the strict standards specified by the Ministry of Agriculture and Forestry. This is the first time that items are shipped to Europe by air especially in a large quantity. A secret lies in a special waterproof carton box created by Yoshito Shimizu, president of Fuji Air Transport Co., Ltd., a forwarding agency of the Koyu Trading Company. Together with Toshiro Yamada, a vice-president of Koyu Trading Company, the two have been testing the best ways of packaging for years. These baby oysters will be forwarded to the French west coast from Paris. When they have grown up to a size after one to one and a half years, Japanese oysters will become a real treat for gourmets in France. Many more tons will be airlifted to Paris from time to time until next May.

Journal "Trade News 1969  
"Transport of millions of  
Seed Oyster to Paris "

## Historical fluctuation of Oyster production in France. フランスに於けるカキ生産量の推移



**Preparation at MangokuUra**  
万石浦での準備作業



**Interview by French TV Station**  
フランステレビ局の取材

## March 11, 2011: French Aid to the Sanriku Tsunami Relief Efforts 2011年3月11日：三陸地域津波被害へのフランスからの支援

### Organizations providing aid

- French-Japanese Society of Oceanographie- France  
仏日海洋学会（Ceccaldi 会長）：
- Association for the development of Aquaculture  
水産養殖振興会（Mariojouls 会長）
- Fondation Air Liquide & Teisan エール リキード基金  
(ティサン)
- Marseille St-Jean Rotary Club  
マルセイユ サン・ジャン ロータリークラブ
- Volunteers of Japanese-French Oceanographic Society  
日仏海洋学会有志（今脇資郎・小松輝久・小池康之・森永勤）
- Okaeshi Project of Marennes Oléron  
マレンヌ・オレロン養殖業者（おかえしプロジェクト）
- Association Gambaro Japan of Bretagne  
ブルターニュの民間団体（ガンバロー ジャパン）





## Donations of Scientific Facilities to MIYAGI and IWATE Prefectures

2011年6月～ 宮城・岩手両県への計測機器寄贈

Contribution: 3,300,000 yens

- 9 Microscopes, 5 Plankton nets to MIYAGI Pref.

宮城県： 顕微鏡9台, プランクトンネット5本



- 8 Microscopes, 5 Plankton nets to IWATE Pref.

岩手県： 顕微鏡8台, プランクトンネット5本



## GAMBARO JAPAN of Bretagne : Life jackets to TARO, IWATE

- ブルターニュのがんばろうジャパンから救命胴着 (田老へ)



- OKAESHI Project of Oléron : Floats and Ropes to ISHINOMAKI, MIYAGI

- オレロンのお返しプロジェクトからロープとブイ (J F 宮城へ)



日仏海洋学会  
Société franco-japonaise  
d'Océanographie



## *September-October 2012, Invitation of researchers and growers, visit to the affected areas, and joint seminar: funded by a French-Japanese joint research grant from the MFJ*

日仏会館の日仏共同研究助成金による研究者招聘、被災地視察および合同セミナー



[Donation Ceremony of Microscopes  
at Research Centre](#) 顕微鏡寄贈



[JF-Taro IWATE](#)  
岩手県田老漁協



[JF-Miyagi, Shizugawa -Wan](#)  
宮城県漁協志津川支所



[Ishinomaki, Mangoku-Ura](#)  
石巻湾（万石浦）



[Seminar at FRA-Tohoku](#)  
東北水研でセミナー



[Seminar at MFJ Tokyo](#)  
日仏会館でセミナー



## Participation in the First World Oyster Congress (Arcachon) and Inspection of oyster farms, November 2012

第一回世界カキ会議（アルカッション）への参加と養殖場視察)



1<sup>st</sup> World Congress organized by oyster growers

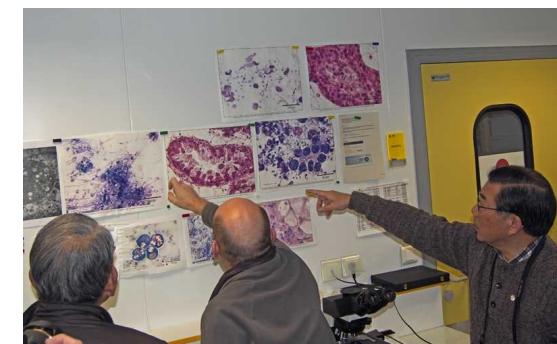
養殖業者が主催した初の世界会議



Congratulating Chairman Laban  
on his decoration. ラバン委員長  
の叙勲を祝う



Mr. Kunio GOTO at Mouille Lande , Visit at IFREMER  
日本の種ガキ放流地に立つ後藤邦雄氏とIFREMERでカキの病  
理について意見交換する關哲夫





## 17th Oceanographic symposium in Bordeaux, October 2017

第17回日仏海洋学シンポジウム、於: ボルドー



*Mr. Gerald Viaud of the Marrenes Regional Committee and Mr. Masanori Hatakeyama of the Karakuwa kensennuma Local Committee.*

マレンヌ地域養殖委員会ヴィ  
オー委員長と気仙沼市唐桑のカ  
キ組合委員長畠山政則氏



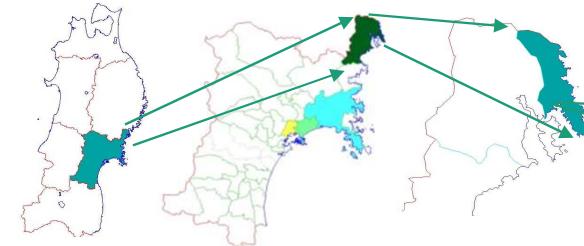
# Attempts of French oyster culture in Oyster Research Institute at Mohne Bay, Karakuwa Town



財団法人かき研究所（気仙沼市、唐桑町、舞根湾）におけるフランスガキ生産の試み



Late Dr. Imai (Professor of the Faculty of Agriculture, Tohoku University )



Tohoku region of Japan showing Miyagi Prefecture



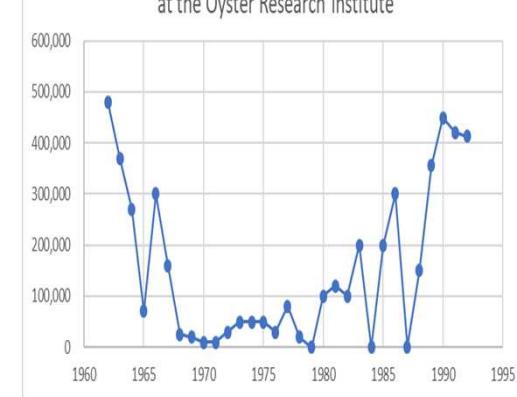
Aerial view of Mohne Bay



Produced French oyster



Production record of the French oyster (*Ostrea edulis*) seed at the Oyster Research Institute

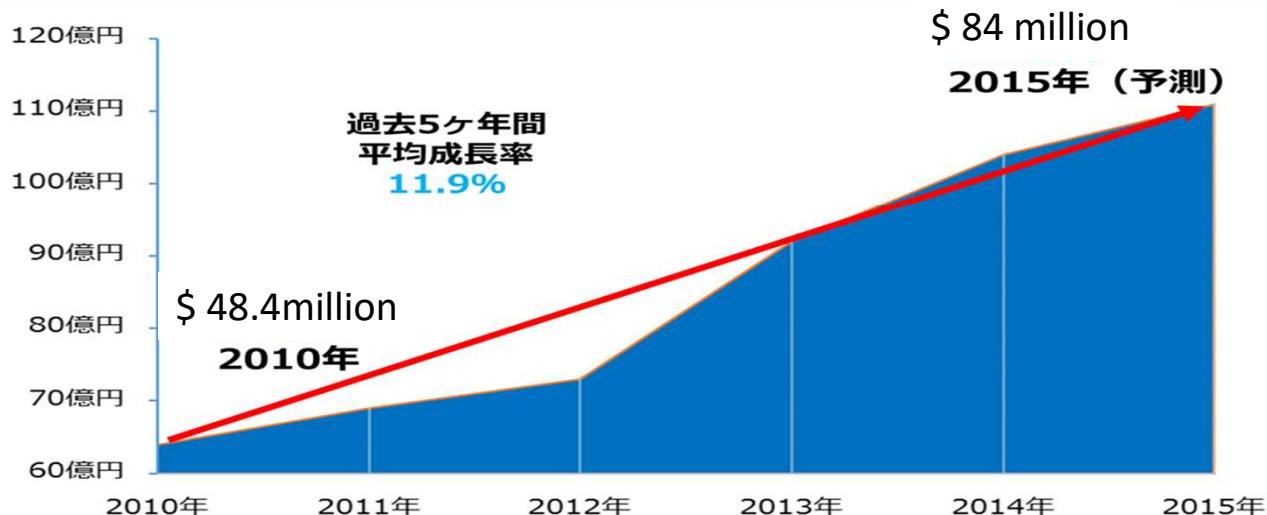


## Recent trend of the oyster Bar marketing in Japan

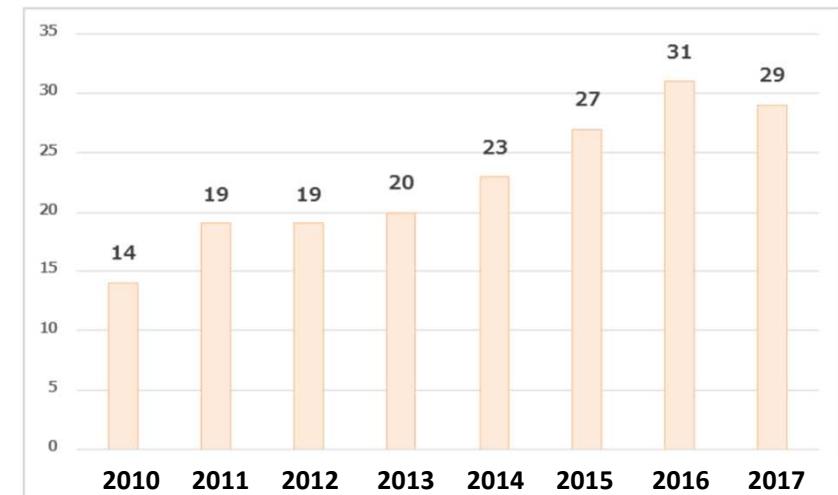
日本における近年のオイスターバー増加と定着

### Development of the Oyster Bar marketing scale

出所：富士経済「食産業マーケティング便覧 2014 年版」



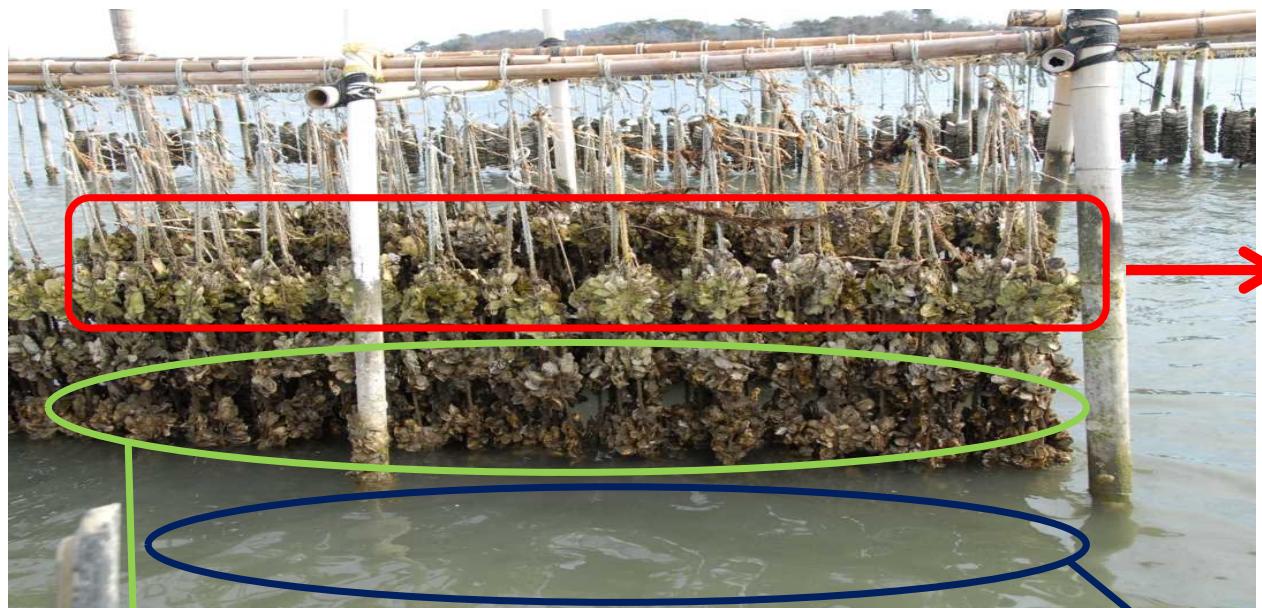
### Number of the General Oyster Co. Ltd. Operated oyster bars



(出所) ゼネラル・オイスター決算説明会資料より証券リサーチセンター作成

# Difference of the oyster shell characteristics by the level in suspending rope of culture

## 簡易垂下の垂下位置とカキ形質の生育差



②

Oyster culturing shelf at the lowest tide

Oyster kept at this level grow to a larger size than upper layer, sweetness and flavor does not exceed the upper level

①

Oyster kept at this tidal level retain intrinsic sweetness with small size and hard shell

New candidates for high quality brand

③

Oyster under this level could grow to a largest size and give ordinary flavor



Newly developing oyster farming system to meet for the demand from oyster bars (start with single seeds)

オイスターバー対応に向けて始められたハーフシェル用力キ生産システム（一粒種ガキを用いる）





# Hot seawater bathing treatment to exterminate fouling organisms 養殖カキの温湯駆除処理



60~70°C, 30~60 sec.

## Possible oyster cooking trend in the future France through the interchange between Japanese oyster eating culture

日仏食文化の交流によってフランスでの流行が可能なカキ料理



Fat oyster in half shell



Baked with foie gras



Fried oyster



Oyster and vegetable hot pot



## The Symbol of our Solidarity



我らが友好のシンボル



Mrs. Seki, Hatakeyama and  
Laban at Hinase. March,  
2023



*Merci de votre attention !!*