

# Eurofish International Organisation

## For the Development of Fisheries and Aquaculture in Europe

**The Market of Invasive Species Products:  
Exploring Challenges and Opportunities**

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# Introduction

## **Definition:**

***“Invasive species are non-native organisms that cause ecological and/or economic harm in new environments”***

## **Dual Perspective:**

**Threat: Disruption of local ecosystems, fisheries, and aquaculture.**

**Opportunity: Potential for innovative products and economic benefits.**

# Economic Impact of Invasive Species

**Europe's Burden: Estimated €12 billion annually in damages\***

**Global Perspective: Over EUR150 billion in costs from 1960 to present\*\***

**Affected Sectors: Agriculture, fisheries, infrastructure, and public health**

\*) [https://environment.ec.europa.eu/topics/nature-and-biodiversity/invasive-alien-species\\_en](https://environment.ec.europa.eu/topics/nature-and-biodiversity/invasive-alien-species_en)

\*\*\*) <https://neobiota.pensoft.net/article/58196/>

# Turning Threats into Opportunities

**Concept: Utilizing invasive species as resources can mitigate their negative impacts**

**Benefits:**

- **Reduces ecological harm**
- **Creates new markets and job opportunities**
- **Promotes sustainable practices**



# The International Union for Conservation of Nature (IUCN)

*News 10 June, 2025*

***“IUCN launches new call for proposals to address Invasive Alien Species in Europe***

***The International Union for Conservation of Nature (IUCN) is pleased to announce the opening of a call for proposals under its European Invasive Alien Species Rapid-Response Fund”***

# Lionfish – From Predator to Product

**Issue: Lionfish threaten ecosystems**

**Solutions:**

- **Culinary Delicacy: Promoted as a sustainable seafood option**
- **Jewellery: Crafting accessories from lionfish fins and spines**
- **Leather: Developing fish leather products**



## Fish leather is here, it's sustainable - and it's made from invasive species to boot

An avid diver saw how lionfish have devastated populations of Florida's native tropical fish and resolved to help solve the problem



📷 Lionfish leather. Inversa says it is helping to solve an environmental crisis by using an invasive species that eats lots of other fish but has no predators in much of its range. Photograph: Inversa

## TODAY I LEARNED THESE FISH MAKE GREAT EARRINGS



<https://www.youtube.com/watch?v=twOZ8bmIRGA>



<https://www.youtube.com/watch?v=GBXkN1WahO3o>



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# LA PESCA AL TEMPO DEI CAMBIAMENTI CLIMATICI

L'economia e la biodiversità del Mediterraneo sono minacciate da nuove specie invasive



# European Green Crab – Culinary Innovations

**Problem: Devastates ecosystems**

**Innovations:**

- **Gourmet Dishes: Incorporation into soups, sauces, and stocks.**
- **Products: Green crab vinegar and spirits.**
- **Community Engagement: Initiatives like GreenCrab.org promote consumption**





### Sweet Corn Salad with Roe

Made with Venetian-style green crab roe, sweet corn, and pickled shallots



### Spicy Curry Green Crab

By Ernie Campbell, chef and owner of Jamaica Mi Hungry in collaboration with Eating with the Ecosystem



### Dirty Crab Martini

Made with crab brine, this simple martini riff comes together in minutes with no stovetop required



### Leek & Crab Roe Croquettes

Comes together in under an hour and our ingredients cost less than \$7!



### Spicy Crab Oil

Add a punch of flavor to a dish while utilizing leftover shells



### Green Crab Scampi

Green crab legs instead of shrimp & Piri Piri

# Sea Squirts – Alternative Protein Source

**Problem: Devastates ecosystems**

**Innovations:**

- **Mincemeat Products: Processed to resemble ground beef.**
- **Sustainability: High protein content and water purification benefits.**
- **Market Entry: Products entering Scandinavian markets**



## 'It should not taste marine-like': Would you eat a burger made from processed sea squirts?

Odd-looking creatures called ciona are naturally rich in protein and one company aims to farm and process them for the table



 A prototype burger made from ciona mince. Photograph: pronofa.com

# The Invasive Pacific Oyster (*Crassostrea gigas*)

**Origin:** Native to Asia; introduced for aquaculture in Europe.

**Impact:** Competes with native oysters (*Ostrea edulis*).  
Forms dense reefs, altering habitats and ecosystems

**Opportunities:**

**Seafood:** Popular in global cuisine

**Byproducts:** Used in lime, biofilters, and crafts

**Services:** Can support bioremediation and shoreline protection

**Challenge:** Balancing commercial value with environmental risk



# The Invasive Pacific Oyster (*Crassostrea gigas*)

**Annual production of Pacific (cupped) oysters more than 100,000 tonnes. This output corresponded to a first-sale value of about €444 million\***

**In 2023, the entire EU aquaculture sector generated around 1.1 million tonnes of product worth €4.8 billion, with Pacific oysters being the second most valuable species\*\***

**Thus, the Pacific Oyster contributes roughly €440–450 million per year to the EU's aquaculture economy**

\*) <https://www.sciencedirect.com/science/article/pii/S1385110122001691>

\*\*\*) [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Aquaculture\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Aquaculture_statistics)

# The Clinging Jellyfish (*Goniomoenus vertens*)

**Issue: Massive blooms affecting fisheries and tourism**

**Innovations:**

- **Culinary: Jellyfish ice cream and other delicacies**
- **Medical Research: Potential treatments for joint diseases**





# Market Dynamics and Consumer Acceptance

## Tasks:

- **Public perception and willingness to consume invasive species**
- **Focus on regulatory and food safety concerns**

## Strategies:

- **Educational campaigns**
- **Funding for research and product development**
- **Guidelines for sustainable harvesting and processing**
- **Culinary events and tastings**
- **Collaborations with chefs and influencers**

# Recommendations for Stakeholders

## For Policymakers:

- **Support research and innovation**
- **Streamline regulations for invasive species products**

## **Recommendations for Stakeholders, *cont.***

### **For Entrepreneurs:**

- **Explore niche markets**
- **Engage in public education and marketing**

## **Recommendations for Stakeholders, *cont.***

### **For Communities:**

- **Participate in harvesting programs**
- **Collaborate with scientists and businesses**

## Key Takeaway

**Invasive species that pose significant challenges also offers unique opportunities for innovation and economic development**

## **Call to Action**

**Embrace sustainable utilization strategies to transform ecological threats into valuable resources**



**Thank you for your attention!**