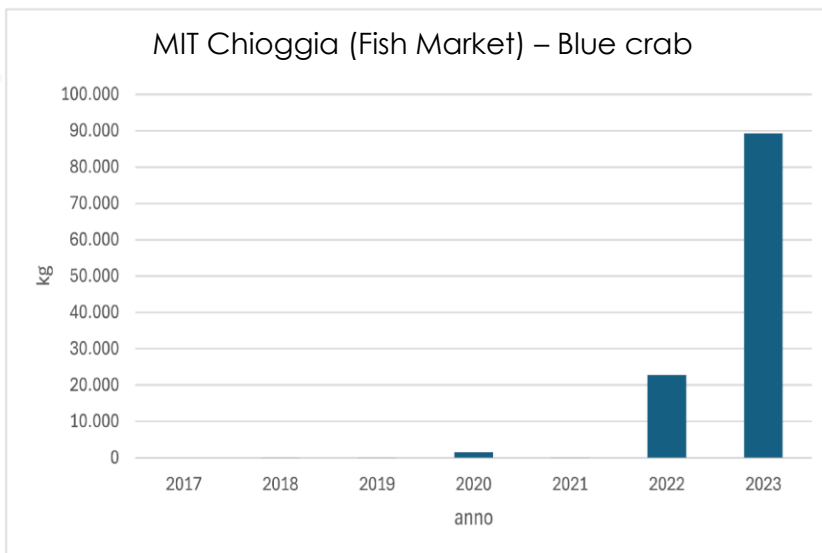


MEDAC advice on useful steps to face the most invasive species in the Adriatic Sea: Blue Crab (*Callinectes sapidus*)

During the meeting of the MEDAC FG on Adriatic Sea held on April 9, the DG MARE representative asked for further information on the blue crab invasion and about possible actions to face this phenomenon.

First of all, the local expert (Agriteco) highlighted the explosion of the problem in summer 2023, even though the signs of its invasive presence have been already observed for some years. The graph below does not include all the affected enterprises of the area, but it is meaningful in terms of trend.



The lagoon fishers using fixed nets were the first observers of the phenomenon:

2017, a few specimens/week
2018-2019, a few specimens/week
2020-2021, tens of kg/week
2022, tens of kg/day
2023, hundreds of kg/day

Moreover, the local expert (Agriteco) highlighted the huge economic damage to the local fishing companies that are suffering from the invasion of the blue crab. The impacts are related to the:

- Decline in the resource and consequent decrease in catches and income;
- Elevated costs of fixing the damaged fishing nets;
- Search for new markets and processing activities;
- Blue crab elimination expenses.

To date the overall damage to the fishery sector is not quantifiable, because the major impact is on the clam's population that is a prey of the blue crabs. In fact, the drastic reduction in landings of clams and the related impact on the turnover of this sector in the Delta Po caused a reduction estimated from 50 mln to zero (source: Agriteco).

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The MEDAC deems appropriate to develop the following pilot projects to better understand this invasion, its impact, and the possible actions:

- The data collection aimed to provide all the information on the landings of blue crabs in the affected area,
- The interaction between the blue crab (*C. sapidus*) with the Mediterranean green crab (*C. aestuarii*) and the related effects,
- Assessment of the blue crab on the traditional fishing activities in the lagoon ("serragianti") and along the coastline
- Investigating the possibility of inclusion in other production lines, such as those for feed, flour, cosmetics, integrators etc. and exploring the properties of the carapace rich in Chitin, Magnesium and Calcium
- Verifying the interactions between blue crab and ctenophores (*Mnemiopsis leidyi*)
- Studying the Tunisian model to search for solutions to be applied locally:
 - o Step 1 – training of operators (more than 600)
 - o Step 2 – involvement of fish-processing companies to test the potential for exploiting blue crab
 - o Step 3 – startup of processing and export companies

On the basis of the local ecological knowledge (LEK) it is suggested to monitor this growing phenomenon, it is proposed to study the blue crab mortality to gather information on the potential distribution, so as to develop a blue crab management plan based on a strong scientific monitoring and research basis. Such plan could include testing the deployment of new types of pots and o traps to give priority to catching females (as they reproduce only once in their lifetime and lay millions of eggs). Measures to incentivize the marketing of the blue crab should be implemented as well.

The MEDAC considers that action cannot be delayed, and it is necessary to speed up and reduce the timeframe for the execution of the interventions.