

The jellification of the oceans

■ Technicians instal nets to protect the beach from jellyfish

www.enpi-info.eu

Growing numbers of jellyfish are turning up on Mediterranean beaches, which is a worry for bathers as it can ruin their swims. But it's also a sign that our oceans are in very poor condition, which is why integrated surveillance, prevention and socio-economic impact assessment systems need to be put in place. And this is precisely what the MED JELLYRISK project intends to do. MED JELLYRISK is supported by the European Neighbourhood and Partnership Instrument through the Mediterranean Crossborder Cooperation programme. A journalist from the European Neighbourhood Information Centre was present when anti-jellyfish nets were put in place in Hammament and he sent us this report.

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Photos by: AFP © EU / Neighbourhood Info Centre

TUNIS – Let's face it, jellyfish get a bad press. They sting, they scratch and they burn. Today there are precious few ways of effectively relieving the pain after bathers get stung and end up with skin burns that are caused by the jellyfish's skin-irritating cells. That's a concern for the tourism industry in Tunisia as it is on almost all the beaches in the Mediterranean. It's as if the jellyfish have declared war on summer holidaymakers. In Hammament, a coastal tourist town 60 kilometres from the capital Tunis, 'cleaners' are looking to make the beach jellyfish-free by installing 200m anti-jellyfish nets, thus allowing holidaymakers (and children in particular) to feel safe swimming in a protected area. The activity has support from the Mediterranean Crossborder Cooperation

programme and is financed by the European Neighbourhood and Partnership Instrument.

Stefano Piraino, the project coordinator, and Enrico Ribola, who makes the nets, are on the beach. From ten in the morning, with the help of four Italian technicians, two divers and eight Tunisian researchers, they start installing their nets, floats, ropes, strengthened chains and protection rings in the bathing area of Orangers beach. Each net is fixed with 'anchors with screws' up to three metres in depth, is 50m long by 25m wide and is put in place right along the beach. The nets create a swimming pool in the sea that jellyfish can't get into. "It's set up in a few hours and creates a 30m long safe swimming area," explains Cyrine Ferchchi from the National Agronomic Institute of Tunis. This year, thanks to the protective nets, there has been a 100% reduction in the *Pelagia noctiluca*, *Rhizostoma pulmo* and *Cotylorhiza tuberculata* species and an 80% reduction in the *Carybdea marsupialis* and *Olindias phosphorica* species.

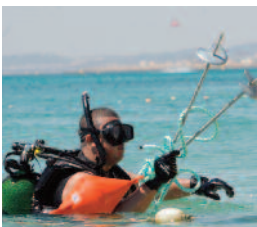
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■ The spread of jellyfish is a growing threat for human activities



■ Technicians install nets to protect the beach from jellyfish

A smartphone to help you choose where to swim

"It means no more stings. At least that's the case for swimmers who stick to within the area protected by the nets. It's setting up a real anti-jellyfish area," says Enrico Ribola. These protective nets allow people to swim safely in a protected perimeter. But that's not the only activity of the day, which aims to raise the public's awareness about the causes and consequences of the rising number of jellyfish and on the action to take and treatments in case of stings. The communications effort is already paying dividends. This year, a lot of information about the numbers and spread of jellyfish has been gathered directly thanks to the general public. During the day, young students from Bizerte University have the chance to talk to technicians. Technology also comes into play. "The MED-JELLY smartphone application will in the future be able to identify beaches where there aren't any jellyfish," explains Ons Kéfi Daly Yahia from the National Agronomic Institute of Tunisia. An application of this kind has already been developed in Spain and in Malta and tells users about the presence of jellyfish in Maltese coastal waters plus logistics information on each beach and the treatments for stings for each species of jellyfish. It's a good example of what Crossborder Cooperation is all about: knowledge and skills are shared among all the partners in a project. All the parties involved are ready to learn lessons from the activities that have been set up. In this case, it's about getting in-depth technical and scientific data on the growth in the number of jellyfish, assessing the state of play in the Mediterranean, modelling the distribution of jellyfish and developing solutions to deal with these huge increases in jellyfish numbers. Funded by the European Union as part of the programme of strategic ENPI projects for the period from 2013 to 2015, the MED-JELLYRISK project brings together four countries : Italy, Spain, Malta and Tunisia, represented by two

partners, the Bizerte Faculty of Sciences (Research Group on Biodiversity and the Functioning of Aquatic Systems) and the National Agronomic Institute of Tunisia (Research Group in Oceanography and the Ecology of Plankton).

Human activities to blame

Invasions of jellyfish have become a common phenomenon in the Mediterranean. Both tourists and researchers have an obsessive fear of them. Recently, the Tunisian coast has seen a big increase in jellyfish numbers. This has happened for various reasons, including because of maritime transport, the exploitation of biological resources and the impact of climate change.

"These outbreaks act like a boomerang as they are caused by our human activities," stresses

"The temperature of the globe and the seas is regularly rising. If you add overfishing to that and therefore the disappearance of natural predators of jellyfish, you have the ideal set of circumstances for them to proliferate."

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Ons Kéfi Daly Yahia. “The temperature of the globe and the seas is regularly rising. If you add overfishing to that and therefore the disappearance of natural predators of jellyfish, you have the ideal set of circumstances for them to proliferate.”

“The spread of jellyfish is a growing threat for human and coastal activities, mainly for leisure and aquaculture activities,” explains Mohamed Néjib Daly Yahia from the Faculty of Sciences of Bizerte, who is married to Ms Ons Kéfi. These animals have colonised all the world’s seas to the extent that scientists today talk about the “jellification of the oceans”. Every summer, thousands of swimmers are stung by jellyfish. That leads to high costs for basic first aid care that national health services have to foot the bill for and can put off tourists. The situation has got worse in recent years due to the appearance of new dangerous species.

MED-JELLYRISK is the first attempt at a crossborder response to counter the threat posed by jellyfish. The project puts in place an integrated management approach in ten coastal maritime zones in the western and central Mediterranean sea basin. In these zones, the growing numbers of jellyfish constitute a growing threat, hence the need to train technical operators and managers who are well versed in the techniques of installing nets. In Tunisia, the project is something being done over the long term and shows the authorities’ wish to develop, alongside the anti-jellyfish project, an active and wide-ranging communications programme about the threat.



■ The project is therefore putting in place an integrated management approach in ten marine coastal areas

ENPI “Mediterranean Sea Basin Programme” 2007-2013

<http://www.enpicbmed.eu/programme/about-the-programme>

A multilateral cross-border cooperation programme that is part of the new European Neighbourhood Policy (ENP) and of its financing instrument (European Neighbourhood and Partnership Instrument - ENPI). Its aim is to reinforce cooperation between the European Union (EU) and partner countries along the shores of the Mediterranean Sea.

MED-JELLYRISK

This is CTMed’s first project seeking to assess the socio-economic impacts of the increase in the numbers of jellyfish and the implementation measures to tackle this issues. The project will promote the implementation of risk assessment, prevention and mitigation of negative impacts resulting from the increase in the numbers of jellyfish in the ten maritime coastal zones.

To find out more

MED-JELLYRISK fiche projet

http://www.enpicbmed.eu/sites/default/files/med_jellyrisk_final.pdf

MED-JELLYRISK web page

http://jellyrisk.eu/en/#.VETxF_mUeVM

MED – JELLYRISK page Facebook

<https://www.facebook.com/events/294316170738010/>

EU Neighbourhood Info Center – subject fiche: ENVIRONMENT

<http://www.enpi-info.eu/thememed.php?subject=6>

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