

# New Suez Canal poses biodiversity risks for Malta

Alien species making their way into Maltese waters through the newly-expanded Suez Canal could have a significant impact on Malta's marine biodiversity

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MARINE biologists have flagged up a number of concerns following the newly inaugurated expansion of the New Suez Canal, claiming that the expansion of its shipping line will not only pose evident environmental risks – such as the increased probability of oil spills – but that Malta's marine biodiversity will also be affected.

Officially opened in 6 August of this year, the New Suez Canal adds an additional 35-kilometre-long second shipping lane in the existing 164-kilometre-long historical artificial waterway. The expansion, whose construction first began in 5 August 2014, allows for separated passing of ships in opposite directions. It also includes the deepening and expansion of a 37-kilometre-long section of the existing canal.

Perhaps the more readily apparent impact will arise from the increased frequency of shipping rates. In fact, marine biologist Prof. Alan Deidun explained how the expansion will add further pressure to "a Basin which is already one of the busiest shipping waterways in the world".

"90% of all the shipping which traverses the Mediterranean makes use of the Malta-Sicily Channel which is the only nexus between the eastern and western halves of the Mediterranean," Deidun said.

"Hence, a beefed-up shipping volume in waters close to Maltese shores translate into a higher oil spill risk for the same waters and shores," he added.

However, the biological impact of the expanded Suez Canal is not insignificant. Commenting in the September 2015 edition of University of Malta research publication Think Magazine, Prof. Patrick J. Schembri, who leads the Marine Ecology Research Group at the Department of Biology within the University of Malta, said that the expansion has given rise to an 'alien invasion' of sorts in Malta.

Elaborating on this point to MaltaToday, Schembri added that more species from the Red Sea will find their way to the eastern Mediterranean, and the rate of influx of these 'aliens' will be higher than usual because the New Suez Canal will facilitate their passage.

Alan Deidun: "The newcomers will compete with indigenous species, with some of the latter declining as a result"



"Judging by what has been happening in the past 20 years or so, some of these alien species will race across the Mediterranean and will appear in Malta in a short period of time after their entry; others (the majority) will first establish themselves in the Levantine Sea – some of these will eventually spread westwards, in due course reaching Malta and beyond," Schembri added.

Deidun explained how the majority of the 'invading' species will be of the 'Lessepsian' variety – that is, marine species that are native to the waters on one side of the Suez Canal. In fact, "Roughly half of the circa 1,000 non-indigenous marine species known from the Mediterranean to date hail from such warmer waters (Indo-Pacific and Red Sea areas)," according to Deidun.

But why should we be concerned about the sudden appearance of these migrating species? Deidun confesses that, "some of these species have no apparent impact, which is at least not evident for now," however this is unfortunately not the case will all of the species in question.

Both Schembri and Deidun agree that such an invasion invariably "changes the ecosystem", and in this particular case could have a commercial as well as biological impact. While it's too early to predict the long-term impact with much accuracy at this point, both of the marine biologists we spoke to mentioned a worrying possibility – that alien species could eat away at local seagrass, disrupting the habitat and reproductive cycle

of local species.

"The newcomers will obviously compete with the indigenous species, with some of the latter declining as a result," Deidun said.

But the appearance of exotic new species also comes with a more obvious problem: which of them are poisonous upon consumption... even touch?

Deidun flags the toxicity to humans when consumed of the silver-cheeked toadfish, a species of puffer fish, or the impact of the nomadic jellyfish on local fisheries in the East Mediterranean.

In fact, the nomadic jellyfish is venomous upon being touched (i.e., not just toxic if consumed), which is pushing further west in the Mediterranean ever since entering the Mediterranean in the early 1990s and which regularly closes off beaches and power plants in Israel.

"Such a jellyfish species also impacts the fishing industry through the massive plankton quantities it grazes upon and by bursting nets through sheer abundance and weight," Deidun added.

However, when it comes to tackling the matter in the public sphere, both Deidun and Schembri are resigned to the fact that

changing – not least challenging – perceptions may be easier said than done.

In fact, Deidun laments that "marine aliens grab the limelight much less than terrestrial ones do – the introduction of the red palm weevil and the justified media attention is received is a case in point".

"On the flipside, no one ever dwells on the potential damage to seagrass meadows being inflicted by invasive *Caulerpa* (green algae) species. I believe that authorities and the media should take the cue from marine biologists and take the issue of marine aliens more seriously," Deidun adds.

Schembri goes so far as to suggest that, "Some might even welcome the arrival of new alien species, especially if they are colourful tropical species as, from their point of view, it enhances local marine life," adding that this kind of reaction is partly understandable since the impact of these changes may happen over a long period of time and may not be readily apparent to most people. This, despite the fact that "long-term ecological and commercial impacts may be quite severe".

As ever, "education" remains key to increasing awareness and po-

tentially leading to tangible action.

"There is not much anybody can do about the New Suez Canal... but this is not the only way alien species arrive here," Schembri points out.

"One common mechanism is when people throw unwanted plants and animals from tropical marine aquaria into the sea. Many of these aquarium species die, but some survive and may establish themselves. If people become aware of the dangers of such actions, they will tend not to do it."

Deidun similarly condemns "the impact of the aquarium industry, through which thousands of tropical fish individuals are being legally imported each year", while adding that the Maltese authorities could foster better awareness about the impact of invading alien species by adopting the information campaigns implemented in Sicily and Tunisia, where seaside boards, printed informative material and informal talks have all been used to inform fishermen and other sea users about the risks associated with consuming or touching some of these alien species.

Prof. Patrick J. Schembri: "The New Suez Canal is not the only way alien species arrive here"



Lethal to the touch: the dreaded nomadic jellyfish



The impact of invasive *Caulerpa* (green algae) is often overlooked