

# A human-modified seaweed, destroyed 30 000 ha in the Mediterranean biotope

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In the early 1980s, a genetically altered type of the alga *Caulerpa taxifolia*, with unusual morphological and physiological characteristics was released by accident in the Mediterranean sea. Twenty years later, the seaweed has invaded over 30 000 ha. It has also started to colonise Southern Australia and the western coast of the United States.

The green alga, mutated by exposure to chemicals and ultraviolet light for the purpose of aquariums decoration, has shown dangerous capabilities allowing it to adapt, colonise, and threaten multiple biotopes at an exponential rate.

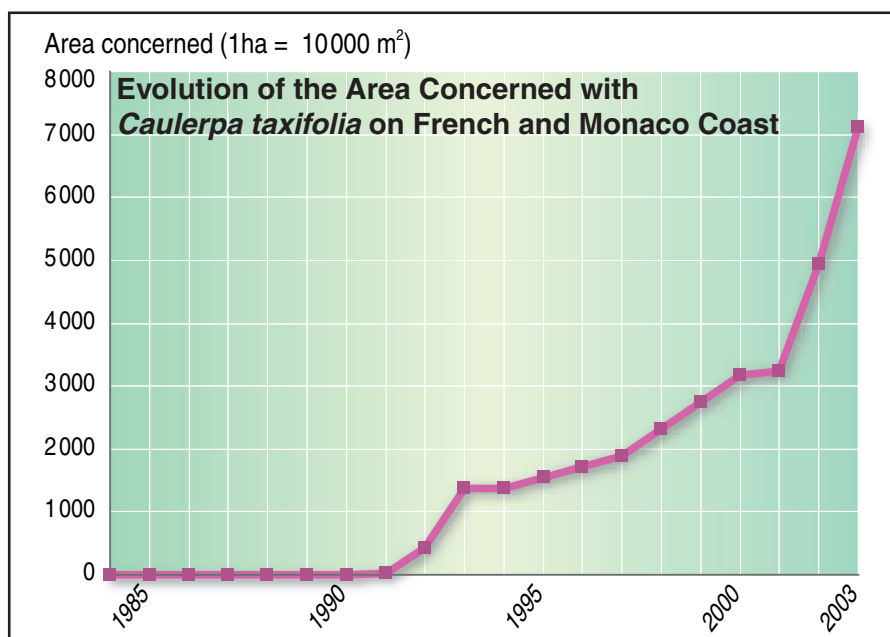
For the first time in history, a human-modified plant is colonising very large areas of the marine environment in a totally uncontrollable way.

*Caulerpa taxifolia* is a fast growing marine seaweed, originally only found in warm tropical waters. It easily multiplies through vegetative spreading aided by dispersal via anchors and fishing nets, or dumping ballast water, in particular in harbours, marinas and other places where boats anchor.

Currents spread this species more widely by transporting fragments to colonize new areas. Apart from shipping, the long-range dispersal of this alga was facilitated by the world-wide aquarium trade.

The artificial strand replace endemic alga and seefloor, causing significant biodiversity loss, the decrease of fish population and impacting touristic areas.

Various attempts that range from manual uprooting, mechanical means (underwater suction devices), physical control with dry ice, to chemical intervention utilizing household bleach (chlorine) and other chemicals have been tried to halt the spread of this invasive species. But despite all the techniques tested, it seems today that the Mediterranean spread has gone out of control...



For the complete article, see [www.grid.unep.ch/product/publication/download/ew\\_caulerpa.pdf](http://www.grid.unep.ch/product/publication/download/ew_caulerpa.pdf)

## Sources:

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- ⊙ Literature Review on the Aquarium Strain of *Caulerpa taxifolia*. Contribution to the 31st BUFUS Newsletter. P. Madl, M. Yip, Salzburg University at [www.sbg.ac.at/ipk/avstudio/pierofun/ct/ct-1.htm](http://www.sbg.ac.at/ipk/avstudio/pierofun/ct/ct-1.htm), 2003, revised version.
- ⊙ Suivi de l'invasion des algues tropicales *Caulerpa taxifolia* et *Caulerpa racemosa* en Méditerranée: situation devant les côtes françaises et monégasques au 31 décembre 2002 - Rapport final. Meinesz A., F. Javel, J-M. Cottalord, D. Garcia (2003). Laboratoire Environnement Marin Littoral (LEML), Université de Nice-Sophia Antipolis, France. [www.caulerpa.org](http://www.caulerpa.org)