



Leibniz-Institut für Meereswissenschaften
an der Universität Kiel

Presse- und Öffentlichkeitsarbeit Tel: +49 431 600-2802 bzw. 2811
Gebäude Ostufer Fax: +49 431 600-2805
Wischhofstraße 1-3 presse@ifm-geomar.de

Lebrato and Jones are positive: Their scientific results will trigger a lot of research on the role of gelatinous zooplankton for the marine carbon cycle.

Background information:

The oceans play a major role in the Earth's climate system. Until now, they have inhibited the greenhouse effect by absorbing a third of the carbon dioxide (CO₂) emissions produced by human beings. In surface waters, tiny marine plants called phytoplankton use sunlight and carbon dioxide to grow. Animals (zooplankton) then consume the phytoplankton and incorporate the carbon. When phyto- or zooplankton die their biomass sinks and starts to decompose. During that process parts of the CO₂ can dissolve back into the oceans and return to the atmosphere as heat-trapping carbon dioxide. But: The faster the biomass sinks the bigger is the chance that it turns into sediment at the seafloor and thus binds the CO₂ permanently.

Original Work:

Lebrato, M., Jones, D. O. B., 2009: Mass deposition event of *Pyrosoma atlanticum* carcasses off Ivory Coast (West Africa), *Limnology and Oceanography* 54(4), 2009. 1197-1209, Online-publication: http://aslo.org/lo/toc/vol_54/issue_4/1197.pdf

Images:

Bild 1: http://www.ifm-geomar.de/fileadmin/ifm-geomar/fuer_alle/institut/PR/science/Pyrosoma_atlanticum.jpg

Bild 2: http://www.ifm-geomar.de/fileadmin/ifm-geomar/fuer_alle/institut/PR/science/Mario-Lebrato.JPG

Image Description:

Figure 1: Gelatinous carcasses of *Pyrosoma atlanticum* (left) and sea urchins (right) at the seabed at 700 metres next to an oil-pipeline. Photo: Lebrato/Jones

Figure 2: Mario Lebrato working in the laboratory at NOCS. Photo: Lebrato

Contact:

Mario Lebrato, IFM-GEOMAR, phone:+49 431 600-4507, mlebrato@ifm-geomar.de
Katja Machill (public relations), IFM-GEOMAR, phone: +49 431 600-2807, kmachill@ifm-geomar.de