

# PRESS RELEASE

Flanders Marine Institute (Vlaams Instituut voor de Zee - VLIZ)

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## World-leading marine biodiversity experts take stock of the state of the ocean

*From 17 to 20 November, more than 600 marine researchers will be gathering in Bruges for the triennial World Conference on Marine Biodiversity (WCMB). Halfway through the UN Ocean Decade (2021–30), they take stock and look ahead to the state of marine life worldwide. Overall, the ocean is currently at a crossroads, facing systemic threats alongside a few success stories. While large, charismatic animals receive most attention, many more species may disappear unnoticed among the ocean's small and poorly known invertebrates.*

### Species disappearing before being discovered

The World Conference on Marine Biodiversity is organised by the Flanders Marine Institute (VLIZ), who provides the technical infrastructure, data management and coordination of the World Register of Marine Species (WoRMS). This authoritative inventory of all 250,000+ marine species known to date forms the backbone of marine biodiversity research and is based on active collaboration with 350 leading taxonomic experts from around the globe. Their insights and in-depth knowledge, combined with published research, suggest that we are currently **at a crossroads** when it comes to the conservation of marine biodiversity. On the one hand, much marine life remains undiscovered, as evidenced by the annual inclusion of around 2,000 new species in WoRMS; estimates of the actual number of living marine organisms range from 0.5 to 2 million. Meanwhile, habitats are disappearing or deteriorating even before they have been adequately explored, due to pollution and eutrophication, coastal development, intensive fishing, and introduction of non-indigenous species. As an example, the population trends of many molluscs (clams, snails, squids) – accounting for around a fifth of all known marine species – may not have measurably changed over the past quarter of a century, and almost 500 new species are still discovered every year, says Philippe Bouchet, a world-renowned expert on molluscs: *“There are now more protected areas but, simultaneously, the health of the non-protected ocean continues*

*to deteriorate. Most affected are estuaries.” And when it comes to nematodes, a phylum of microscopically small but extremely diverse and abundant worms in marine sediments, “There is still a great deal we do not know, resulting in the highest number of undescribed species and very little knowledge regarding their distribution and geographical range, especially in the deep sea (> 200 m water depth)”, according to Ellen Pape (deep-sea nematode ecologist).*

## **Marine biodiversity: signs of hope amid mounting global pressures**

Marine biodiversity is under mounting pressure, but its decline is neither universal nor irreversible. Conservation efforts have helped the recovery of threatened species, while effectively managed marine protected areas have demonstrated that populations can rebound. These successes demonstrate that protecting marine life can make a real difference. Yet they stand against a deeply concerning global trend. According to WWF's latest *Living Planet Report*, monitored populations of marine vertebrates – including fish, seabirds, marine mammals and reptiles – have declined by an average of 59%. The IUCN Red List paints an equally alarming picture: 38% of assessed sharks, rays and chimaeras, and 44% of reef-forming coral species, are threatened with extinction. Meanwhile, the latest global coral reef assessment documents a long-term decline in coral cover, with marine heatwaves increasingly undermining recovery. Bert Hoeksema (coral expert): *“This is relevant for shallow-water, reef-dwelling species in particular, due to coral bleaching (resulting from elevated sea surface temperatures), new diseases, pollution, population outbreaks of coral-eating animals, harvesting for the aquarium industry, and competition with invasives. It is important to note that there are many species of coral-associated organisms that are also threatened if their host-coral species disappear.”.*

These trends reflect multiple, interconnected pressures. The United Nations' *Third World Ocean Assessment*, as well as the latest *IPBES report*, identifies climate change (warming, acidification, oxygen depletion), overexploitation (fishing), pollution and habitat degradation as major threats to marine ecosystems. Ocean acidification and oxygen loss further compound these pressures, threatening marine life from tropical reefs to polar waters. The latest Copernicus Ocean State Report reinforces this picture of an ocean undergoing profound environmental change. Marymegan Daly (sea anemone expert): *“Deep-sea anemone species face the most substantial threats, because their diversity is poorly characterized and many species are known only from very restricted and threatened habitats (like deep-sea habitats of high interest to*

*mineral extraction). Shallow water species in sea grass and kelp habitats are threatened by habitat loss, sea level rise, and climate change.”*

Ultimately, what is at stake extends far beyond the survival of individual species. Healthy marine ecosystems sustain fisheries and coastal livelihoods, regulate our climate, protect shorelines and support human wellbeing. Safeguarding these benefits for future generations requires more than isolated conservation successes. It demands coordinated action to tackle the systemic pressures driving biodiversity loss, alongside stronger protection, sustainable resource management and ecosystem restoration. The ocean has shown us that recovery is possible. The challenge now is to make it the rule rather than the exception.

## Public event

The documentary *How Deep Is Your Love* explores the biodiversity of the deep-sea, highlighting the extraordinary life forms found in one of the least explored environments on Earth, as well as the growing threats associated with deep-sea mining. The film will be screened on *18 November 2026* at *Concertgebouw Brugge*, as part of the World Conference on Marine Biodiversity (WCMB 2026). Further information and tickets are available [here](#).

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