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National Science and Technology Forum (NSTF)

media release

Safeguarding South Africa's marine heritage through scientific excellence

Celebrating Mammal Research Institute Whale Unit on World Nature Conservation Day, 28 July 2026

Healthy oceans are fundamental to sustaining biodiversity, supporting livelihoods and mitigating the effects of climate change. As the international community marks World Nature Conservation Day on 28 July, the [National Science and Technology Forum \(NSTF\)](#) celebrates scientific excellence that is helping to protect the planet's natural resources and marine ecosystems for future generations.

To commemorate the day, the NSTF proudly profiles the [Mammal Research Institute \(MRI\) Whale Unit at the University of Pretoria \(UP\)](#), recipient of the Data for Research Award at the 2025 [NSTF-South32 Awards](#), known as the '*Science Oscars*' of South Africa (SA). Prof Els Vermeulen is the Senior Lecturer and Research Manager of the MRI Whale Unit, and her team was recognised for building Africa's most comprehensive whale monitoring programme through tracking population trends, habitat use and climate change impacts, directly informing conservation policies at national and international levels while advancing public education for the benefit of both conservation and human communities.

"We study whales not just to protect them, but because they're indicators of something much bigger. When whale populations change, it often reflects shifts in the entire ocean ecosystem."



Prof Els Vermeulen, Senior Lecturer and Research Manager of the MRI Whale Unit

About Mammal Research Institute Whale Unit: Founded in 1985, the MRI Whale Unit has established itself as one of Africa's foremost centres for marine mammal research. Based in Hermanus, Western Cape, the Unit conducts long-term research on whales, dolphins, and porpoises found throughout southern African waters, generating scientific knowledge that supports conservation, environmental management, and evidence-based policy.

For four decades, the Unit has coordinated one of the world's longest-running monitoring programmes for southern right whales. By documenting changes in whale populations, reproductive success, migration routes, and habitat use over many years, researchers have been able to identify how environmental pressures, including climate change, are affecting marine ecosystems. This long-term approach provides decision-makers with reliable scientific evidence to guide conservation planning both nationally and internationally.

Prof Vermeulen states; "Whales are sentinels of ocean health. By listening to what they're telling us, we have a chance to act, not just for them, but for the entire ocean."

The Whale Unit combines traditional ecological fieldwork with modern technologies such as satellite telemetry, drones, genetics, hormone analysis and photographic identification. These techniques allow researchers to study whales with minimal disturbance while collecting detailed information about their health, behaviour and movements. The Unit's research contributes to the work of organisations including the International Whaling Commission (IWC) and the International Union for Conservation of Nature (IUCN), strengthening global efforts to conserve marine mammals.

Beyond research, the MRI Whale Unit has played an important role in developing SA's marine science capacity. Through supervising postgraduate students, mentoring early-career researchers and collaborating with institutions across Africa and internationally, the Unit continues to cultivate the next generation of marine scientists committed to protecting ocean biodiversity.

The MRI Whale Unit's work demonstrates how long-term scientific research can transform conservation from observation into action. By generating trusted data over many decades, the team continues to strengthen marine conservation policies while improving public understanding of the importance of healthy ocean ecosystems.

The NSTF visited Prof Vermeulen in Hermanus on 14 July 2026, with the students of the [NSTF Brilliants Programme](#), and she gave us a fascinating tour of their offices, laboratories and the Whale Museum.

World Nature Conservation Day: This significant observance highlights the importance of protecting Earth's natural resources and conserving biodiversity to ensure environmental sustainability for present and future generations. It encourages governments, researchers, organisations and communities to work together to preserve ecosystems, restore degraded habitats and promote responsible stewardship of the natural environment.

Healthy ecosystems underpin food security, clean water, climate resilience and human well-being. Scientific research is therefore essential for understanding environmental change, monitoring biodiversity and providing the evidence needed to develop effective conservation policies and sustainable management practices.

Marine ecosystems are among the world's most valuable natural resources, yet they face increasing pressures from climate change, pollution, habitat degradation and unsustainable human activities. Long-term ecological research, such as that undertaken by the MRI Whale Unit, plays a critical role in helping scientists understand these challenges while informing practical conservation interventions that protect marine biodiversity.

Call to action: The NSTF encourages the world to recognise the value of scientific research in protecting the world's rich natural heritage. Supporting research institutions, promoting environmental awareness and embracing sustainable practices all contribute to safeguarding biodiversity for future generations. Support the work of researchers such as the MRI Whale Unit which demonstrates how long-term scientific investment can lead to meaningful conservation outcomes that benefit both people and nature.

To young people: The NSTF also encourages young people to pursue studies and careers in environmental science, marine biology, ecology and conservation. These disciplines play a vital role in protecting biodiversity, addressing climate change and ensuring the sustainable use of natural resources. See the [NSTF Careers Booklet](#), particularly the *green career fields* and those related to environmental and biological sciences, to learn more about STEM careers that contribute to conserving SA's natural heritage. Explore the NSTF's online learning platform, [STEMulator.org](#), where the virtual museum boasts the skeleton of a Southern Right Whale, with fascinating info: [STEMulator_Science](#).

About the NSTF and the NSTF-South32 Awards: NSTF is an independent non-profit [stakeholder body and network](#) – a civil-society forum of over [150 member organisations across six membership sectors](#), involved in science, engineering, technology (SET) and innovation in SA.

The [NSTF-South32 Awards](#) is famously known as the 'Science Oscars' of SA that recognises excellence in SET and innovation in SA across [16 categories](#). The [gala dinners](#) to announce this year's [winners](#) took place in two cities simultaneously (Cape Town and Johannesburg) on 16 July 2026.

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References

- <https://nstf.org.za/wp-content/uploads/2025/07/2025-08-01-NSTFSouth32-Awards-2.pdf>
- <https://www.mammalresearchinstitute.science/whale-unit>
- <https://www.up.ac.za/whale-unit>
- <https://nstf.org.za/2026/03/10/mammal-research-institute-whale-unit/>
- <https://iucn.org/>
- <https://nationaldaycalendar.com/celebrations/world-conservation-day-july-28>

About the NSTF

The National Science and Technology Forum (NSTF), established in 1995:

- is a broadly-representative stakeholder body for all science, engineering and technology (SET) and innovation organisations in South Africa
- gathers stakeholders around burning issues of national and global interest, across the public and private sectors, including matters of public policy
- includes a network of professional societies in SET and STEM education (STEM = science, technology, engineering and mathematics) - the NSTF proSET membership sector.
- recognises, awards and profiles the outstanding contributions of individuals and groups to SET and innovation through the prestigious NSTF Awards
- runs and supports collaborative projects and youth outreach, including recognition of top performance in mathematics and science, role modelling, bursary and STEM career information
- runs and supports the STEMulator.org which attracts youth and educators to Explore>Discover>Learn the world of STEM including careers. (Established by NSTF proSET)

For more information
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