

NEWS RELEASE

SCIENTISTS JOIN FORCES TO UNCOVER SECRET LIFE OF WORLD'S BIGGEST FISH

Geneva, June 17 2008 – The strange bounding underwater “flight” of the mightiest fish in the ocean has been revealed for the first time through a remarkable scientific collaboration.

This secret life of the whale shark, the world's biggest fish, was recently disclosed in a scientific world-first by two Laureates of the Rolex Awards for Enterprise, Brad Norman, of Australia's Murdoch University, and Professor Rory Wilson, of Swansea University, in the United Kingdom.

In the Indian Ocean, off Ningaloo, on Australia's western coast, the two scientists and their team equipped several whale sharks with a unique electronic device known as a “daily diary” that records in minute detail – eight times a second – the giant creature's every action – speed, depth, pitch, roll and heading, as well as every beat of the fish's tail.

“For the first time we have an insight into what it is that these magnificent creatures get up to when they are out of sight of humans – and it isn't what we expected,” said Norman, who received a Rolex Award in 2006 for his project employing “citizen scientists” worldwide to help study and protect whale sharks through the ECOCEAN Library, an online global photo ID library, housed on the website whaleshark.org.

“It's a real Jekyll-and-Hyde existence,” said Wilson of the contrasting character of the shark revealed by his electronic wildlife monitor. The device is helping to lay bare the private lives of more than 50 different animal and bird species in the wild, providing information vital to their conservation, a project that won Wilson a Rolex Award, also in 2006.

Normally seen cruising slowly at the surface, the whale shark, which does not harm humans, transforms into a dynamic monster in the deep, hurling itself into a swift, steep dive “like a fighter pilot”, soaring up, then down again, in a series of great bounds that have astonished the two scientists. “It is like the way a bird dives, then soars, using its momentum and gravity to conserve as much energy as possible. It flies like a bird – but, in this case, a bird as large as a bus!” Professor Wilson said. He believes such behaviour has never been observed in fish before.

The first real understanding of the whale shark, one of the rarest and most mysterious creatures on earth, came at a trial in Ningaloo in May, 2007, within minutes of equipping

it with the daily diary. Clipped to its dorsal fin and retrieved by hand a few hours later, the diary reported every action second-by-second to the research team.

The in-depth test came in late May this year when diaries were attached to eight sharks up to eight metres in length off Ningaloo. Complete sets of data were then recovered, documenting every movement of the giant fish over several hours. The US\$2,900 devices are designed to release manually or automatically from the sharks and can be recovered by tracking them. However, two were lost during the Ningaloo tests.

Whale sharks' behaviour when deep below the surface has never been observed in such fine detail as with the "daily diary", Norman said. "It offers us an incredible window into how they live and what they do when out of our sight. This information will be vital in helping to protect this magnificent, but threatened species."

The two scientists hope that eventually the diary will reveal how and where the whale sharks feed and breed, enabling those localities to be protected from human impact such as hunting or pollution.

Norman and Wilson met for the first time at the 2006 presentation of the Rolex Awards for Enterprise, held in Singapore. As both of them are engaged in the scientific study of wildlife for conservation purposes, they saw an immediate chance to join forces to investigate this little-known species. "The Rolex Awards not only support both our projects, but without the Awards this particular collaboration may never have happened at all," said Norman.

In time, the two scientists believe that a detailed knowledge of whale sharks and their habits will reveal new insights into the state of health of the oceans, on which all life ultimately depends.

The Rolex Awards for Enterprise were created in 1976 to foster a spirit of enterprise and advance human knowledge and well-being around the world. They support pioneering work in five areas: science and medicine; technology and innovation; exploration and discovery; the environment and cultural heritage. In each series, Awards are presented to ten visionary individuals, the Laureates and Associate Laureates, whose groundbreaking projects benefit their communities, their fields of endeavour and civilisation as a whole. Since the founding of this international philanthropic programme, 100 Rolex Awards for Enterprise have been presented, honouring innovators from 38 countries with projects in over 60 countries.

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