

tech-diving 2012

Jan
28-29

Welcome to Tech-Diving 2012 – the diving event of the year

World renown divers and researchers will arrive in Stockholm January 28-29 to discuss technical diving at the Tech-Diving 2012 conference arranged by Royal Institute of Technology Diving Club. Marko Wramén, journalis, fotografer and chief editor of the Swedish divers magazine DYK will be the moderator of the seminar.

- A lot has happened in the field of technical diving in the last six years. A series of seminars and exhibitions with similar themes have been sr-ranged. But none of those have, in our opinion of view, had the international calibre and focus as that of Tech-Diving 2012

-Now more than 100 attendees! The cost for the complete seminar, including coffee in the morning, lunch and afternoon snacks both days is EUR 160. **Buy your ticket before December 15 and we offer you a discounted price of EUR 150. The number of tickets are limited, reserve your ticket now.**

Tech-Diving 2012 is organized by The Diving Club at the Royal institute of Technology which is one of Swedens most active clubs with a large share technical divers. Tech-Diving 2012 is the fourth since the start 1994 with with attendees from all over the world.

Welcome!

Erik Armerén
KTH Diving Club
info@tech-diving.se



Speakers:

Richard Lundgren

Discoverer of the mighty admiralship Mars the Magnificent sunk 1564.

Dr David Doolette

cave diver and Research Physiologist at U.S. Navy Experimental Diving Unit responsible for developing decompression procedures

Jill Heinerth

underwater explorer and film maker

Dr Simon Mitchell

wreck diver and researcher of inner ear decompression illness and CO2 monitoring, from University of Auckland

Jim Kennard

wreck diver and explorer of shipwrecks in the Great Lakes

Arne Sieber

researcher of advanced diving and new sensor systems for rebreathers

Daniel Karlsson and Dr Dmitri Gorski

cave divers and explorers of the underwater mine of Tuna Hästberg

Dr Michael Genser

researcher environmental physiology, Royal Institute of Technology

Dr Oskar Frånberg

scientist of the Royal Institute of Technology, Stockholm, with main focus on rebreathers and dive technology

register at www.tech-diving.se

program

tech-diving 2012



Saturday jan 28	
08.00	Check-in and coffee
09.00	Exhibition opens
10.00	Presentation of the seminar, Erik Armerén and moderator Marko Wramen
10.15	Simon Mitchell Isobaric counter diffusion and/or decompression research
11.15	Jim Kennard Discovery of the British Warship HMS Ontario .1780 British Warship Wreck in the Great Lakes
12.15	Lunch
13.15	Jill Heinerth Photo and video techniques for extreme diving. She will share experiences from cave and deep ocean expeditions from Bahamas, Bermuda and Egypt.
14.15	Mikael Gennser Hydrering, DCS
15.15	Coffee
15.45	Daniel Karlsson Dmitri Gorski From enthusiast project in the 90-s to major diving attraction the exploration of the mine Tuna Hästberg now reaches 114m.
16.45	Wrap-up of the day, Q&A
17.15	Visit our exhibition
19.00	Three course dinner at KTH restaurant
21.30	Pub

Sunday jan 29	
09.00	Coffee and exhibition opens
10.00	Gold Sponsor message
10.15	Arne Sieber The latest developments about O2 and CO2 sensors for rebreathers
11.15	Oskar Frånberg VPM/Buhlman
12.15	Lunch
13.15	RB discussion
14.15	David Doolette isobaric counter diffusion gas switches during decompression
15.15	Coffee
15.45	Richard Lundgren Searching for and diving the mighty Admiralship Mars
16.45	Seminar wrap-up and goodbye



Dr David Doolette began diving in 1979 and cave diving in 1984.

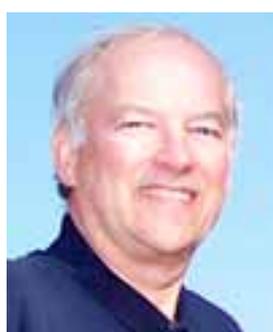
He is a member of the Cave Diving Association of Australia, the Australian Speleological Federation Cave Diving Group, Global Underwater Explorers, and the Woodville Karst Plain Project. He conducts full time research into decompression physiology and has published widely in the scientific and military technical literature. He has been a member of the Undersea Hyperbaric Medical Society since 1987 and received their 2003 Oceanering International Award. He has been a member of the South Pacific Underwater Medicine since 1990 where he was the Education Officer for five years. Since 2005 he has been a Research Physiologist at the U.S. Navy Experimental Diving Unit responsible for development and testing of decompression procedures.



A pioneering underwater explorer and film maker, **Jill Heinerth** has dived deeper into caves than any woman in history. With a collection of magnificent images, from Antarctic iceberg caves to the Floridan Aquifer, Jill shares a glimpse of a breathtaking world few will experience. Her accolades include induction to the Women Diver's Hall of Fame and the Explorer's Club as well as scores of photography and filmmaking awards. Recognized as a leading technical diver, she is one of the world's experts on rebreather technology. An engaging speaker, Jill's multimedia presentations stir audiences with life's lessons learned during expeditions above, below and inside the earth.

Associate Professor **Simon Mitchell** MB ChB, PhD, DipDHM, DipOccMed, FANZCA

Simon is a physician with specialist training in anaesthesiology and diving medicine, and is the Head of the Department of Anaesthesiology at the University of Auckland. He is widely published in the medical literature with over 75 papers or book chapters, and is recognised as a leading international authority on diving medicine. He recently received the Undersea and Hyperbaric Medical Society's highest award for scientific contributions to the field. Simon's current research interests include the pathophysiology and treatment of decompression illness and, in particular, the pathophysiology of inner ear decompression illness. He is also interested in the incorporation of CO2 monitoring in closed circuit rebreathers. Simon is a passionate diver and was recently a lead member of teams that were the first to locate, dive and identify 3 deep shipwrecks of high historical significance in Australia and New Zealand. Simon has been elected to Fellowship of the Explorers' Club of New York.



Jim Kennard has been diving and exploring the lakes in the northeast since 1970. He found over 200 shipwrecks in the Great Lakes, Lake Champlain, NY Finger Lakes and in the Mississippi and Ohio Rivers over the past 35 years. Using his background as an electrical engineer, he built the side scan sonar system that located these shipwrecks. In 1983 he discovered a unique horse powered ferryboat in Lake Champlain. National Geographic featured the ferryboat in their October 1989 issue. In May 2008 he and Dan Scoville discovered the British warship HMS Ontario, the oldest shipwreck ever found in the Great Lakes and just recently a rare 200 year old dagger-board schooner both of which received worldwide attention in the news. Several other of his shipwreck discoveries have been reported in various publications including Skin Diver, Wreck Diver, Inland Seas, and Sea Technology.

Arne Sieber is a scientist currently working in research of advanced diving systems in the framework of a EU-FP7-Marie Curie project. He started working in R&D of sensor technologies for Roche Diagnostics and obtained his PhD in 2002. With a strong background in medical sensor technologies, he started to improve rebreather systems by incorporating new sensor systems to increase safety of rebreathers. He has done research in hyperbaric medicine, especially on physiology of apnea divers and on the development of innovative OLED based head up displays. He also takes part in the EU-FP7 Initial Training Network PHYPODE, which aims to advance understanding of the decompression phenomena by uniting academic and industrial partners on an international scale. Arne has published more than 60 scientific articles on conferences and journals and has filed 8 patents. He is now with IMEGO AB in Sweden.





Oskar Frånberg is a scientist at the Department of Environmental Physiology at KTH Royal Institute of Technology in Stockholm, Sweden. Previously he was employed as a scientist at the Department of Naval Medicine at the Swedish Defence Research Institute. Frånberg holds an MSc in engineering from Chalmers Technical University in Gothenburg, Sweden, and was previously an EOD diver in the Swedish Navy. Even though Frånberg's research has touched on many aspects of diving physiology the main focus has been rebreathers and dive technology where he has conducted development, evaluation and research studies both manned and unmanned. Frånberg has been representing the Swedish Standards Institute in the European underwater breathing equipment standards, CEN/TC79, since 2003

Daniel Karlsson and Dmitri Gorski, Baggbodykarna, started to explore the dry part of Tuna-Hästberg mine back in 1998. Experienced cavers and sump divers, they soon reached the third and last dry level after which scuba equipment had to be used for further exploration. Since then, more than six kilometres of permanent line has been installed in the dark maze of underwater passages. The mine itself has become a well-known attraction for cave divers from all around Sweden and abroad. Daniel will tell the story of the mine and how it was developed from an enthusiast project. Dmitri Gorski joined the team in 2007 and brought with him experience of deep trimix and rebreather diving. He was one of the leading members of the 2011 Deep Exploration Project where divers reached depth of 114 meters in the freezing water, making some astonishing discoveries of the long-forgotten industrial era. Dmitri will share his thoughts about this kind of diving and show what was accomplished during the deep dives.



Richard Lundgren has worked as a diver professionally around the world for more than 20 years. He's been fortunate to have participated in many sensational exploration projects such as HMHS Britannic, sister ship of the RMS Titanic, and the discovery of the mighty admiral-ship Mars the Magnificent sunk during the Nordic seven year war in 1564. Lundgren is a founding member of the exploration organization, GUE, Global Underwater Explorers and serve in the training council.

Lundgren pioneered Technical and Cave diving, exploration diving, in Scandinavia in the early 1990s and part founded the prestigious explorations groups BSTD, Baltic Sea technical Divers, and Ocean Discovery. As president Lundgren spearheaded numerous explorations worldwide during the 1990s including targets like the Spanish gold galleon outside Key West, the M1 experimental submarine of the coast of Plymouth, the blue hole caves in Bahamas and Bimini and setting the North European cave penetration record in arctic conditions.

The success of the Ocean Discovery ongoing project "the search for the Admiral's fleet" is nothing but sensational. Ocean Discovery has since the early 2000s discovered and explored more than 120 ship wrecks. Many of these wrecks have earned international fame and become research projects for scientists globally.



Dr **Mikael Gennser** studied medicine at the University of Lund/Malmö, and received his medical degree in 1981. He defended his thesis in physiology at the Karolinska Institutet 1989. He was employed as researcher, senior researcher, and project manager at the Department of Naval Medicine at the Swedish Defence Research Establishment / Swedish Defence Research Agency (FOA/FOI) between 1990 - 2009. Since 2009 he has been researcher at the Department of Environmental Physiology, School of Technology and Health, Royal Institute of Technology, KTH.

Dr Gennser has published scientific papers and reports in various fields related to diving and environmental physiology such as effects of high pressures and the interaction of hydrostatic pressure and inert gases on electrically excitable tissues, hydrogen as dive gas, nitrogen narcosis, psychomotor effects of acute and prolonged hypoxia, survival in cold water and cold protection for divers and submariners, breath hold physiology, submarine escape methods from large depths, and decompression related physiology. Lately, Dr Gennser has been working on trimix tables for the semiclosed mixed gas rebreather used by the Swedish Navy.

Marko Wramén is a journalist, photographer and editor for the diving magazine DYK in Sweden. He started freediving and underwater rugby in the 70s, served on submarines during the Cold War in the 80s and started working for diving magazines in the 90s. As a side project, he produced several award-winning underwater documentaries for Swedish Television. Marko Wramén is also chief editor of Sweden's only paragliding magazine, a freelance travel journalist and photographer, international elections observer and an expert on Belgian beer. He previously worked with humanitarian aid in the Middle East and international peacekeeping forces in the Balkans.

