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## RECREATIONAL DIVING IN SWEDEN

*W artykule przedstawiono strukturę organizacyjną nurkowania rekreacyjnego w Szwecji.*

### INTRODUCTION

Recreational diving has become rather popular in Sweden in recent years. The main divers training schools are PADI and CMAS but most other international training organisations are represented. Consequently, the instructors are trained within the organisations training programmes. Technical diving is growing as well, but real technical diving with trimix is fortunately rather uncommon so far.

### 1. TRAINING

We are training about 10.000 recreational divers a year in Sweden. We do not know how many of those that stay active. In fact we do not know very much about how many recreational dives that are conducted each year.

The civilian professional divers and instructors are trained to Navy standards by the Navy or by organisations licensed by the Navy. We do not train deep or saturation divers Sweden.

#### Divers medical

There is no official demand for a medical examination before recreational divers training. However, all recognised training organisations have such a demand.

*The Swedish Hyperbaric Medical Society* has a group of diving medical specialists constantly working with updating the fitness to dive standard recommendations. These recommendations are recognised by all professional diving medical specialists in Sweden. However, you are not by law forced to stick to them. In fact you do not even have to consult a diving medical specialist for the examination even if most schools recommend you to.

For professional training and diving there is a regular medical examination.

A recreational divers instructor who is employed as such is considered a professional diver.

#### Equipment

The equipment used are the common international brands, for example Scubapro, Mares, Poseidon etc. We put a lot of effort in convincing the divers to only use sets suitable for cold water with proper anti freeze construction.

Most recreational divers use air but nitrox on open SCUBA is becoming more common. Semi closed rebreathers are sold but rather expensive. We are concerned about these sets as the oxygen fraction varies with the oxygen consumption. So, there may be a risk for shallow water blackout besides the fact that you do not know the nitrogen exposition during the dive.

In co-operation with the authorities we do regular check ups of the quality of breathing air sold at the filling stations, both concerning pollutants and water. We are concerned with the hazards of filling nitrox, as many divers prefill their bottles with pure oxygen and then ask the filling station to fill the bottle with air without knowing that it is pre-filled with oxygen. We have had a few incidents with this so far. We are looking forward towards standards of nitrox handling, equipment and marking.

Dry suits are becoming more common for obvious reasons. However, this makes correct buoyancy a more demanding task. We see problems with this, as many divers are trained in tropical waters with wet suit. Our recommendation to those divers is to have a few extra lessons before diving in Sweden. Many schools provide such courses

### Accidents

The DCI (decompression illness, includes decompression sickness, DCS, and pulmonary baro trauma, PBT) treatments have been about 50 a year since some years and the fatalities about 5 a year. We do believe that the number of dives a year is rising which of course means that diving becomes more safe. However we have seen a tendency to more treatments after hazardous dives, especially deep air dives.

Unfortunately there is no reliable system to report incidents. Those or the „near accidents” are very common and if we had the possibility to analyse them, we would probably have a better background for statistical analyses of what should be changed.

The treatments of DCI are conducted in three hospitals in the west coast (Uddevalla, Goteborg and Helsingborg), one in the south coast (Karlskrona in co-operation with the Navy) and one in Stockholm (Karolinska Hospital). There are two facilities in the northern part (Harnosand and Boden) and one in the island of Gotland as well but they are not constantly on call. The regular rescue personnel may to some extent be trained to take care of diving accidents. The national rescue switchboards have routines for diving accidents. There is no organised co-operation with DAN (Divers Alert Network).

The Armed Forces normally conduct an initial treatment on 18 m with oxygen on their own cases. The patient is then referred to a civilian hospital. There is a very close co-operation between the military and the civilian society in this as in most other fields. We educate and train the diving doctors together in one course every year. Many of the civilian diving doctors are part time employed by the Navy. The Navy recompression chambers may be manned by civilian medical personnel in a disaster situation, for example HBO-treatment of CO-intoxications at a major fire.

### Fatalities

All diving fatalities are investigated by a special national department within the police force. The technical evaluation is made by the Navy as well as the diving medical evaluation where the police-, technical- and coroners reports are linked together. This is a very beneficial system as it makes it possible for us to make as much experience as possible out of each case.

### Where to dive

There are principally three areas of recreational diving in Sweden. The lakes, the Baltic and the west coast.

### The lakes

There are many lakes in Sweden. Many of them have a rather bad sight but some of them are popular for diving. In the greater lakes there may be wreck diving but mostly lake diving is about observing the nature.

### The Baltic

We are here talking of all the east coast. This is a good area for wreck diving. As in Polish waters we do not have shipworms in the east coast which means that wooden wrecks stay rather intact. There are several wrecks from the 16th and 17th century. Besides those there are a lot of more modern ones.

It is important to know that all wrecks older than 100 years are protected by law and divers are only allowed to watch them. The coast guard constantly keeps an eye on this and the fines are high.

### The west coast

Due to very clear water this is the place to watch a very rich underwater life.

### Diving tables

The official diving tables for professional divers in Sweden are US Navy. However, most recreational divers stick to the tables provided by their diving organisation (or by their computers).

### How to dive

In any city throughout the coast one will find diving shops or schools that organise diving excursions and where one can rent equipment. Just contact the local tourist organisation or any of the major international recreational divers organisations.

## **2. SUMMARY**

There are many opportunities for recreational diving in Sweden. It can be conducted in a very safe way. Stick to the rules and do only dive with recognised organisations. Do not overestimate your capability.

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