

# DIVING IN GENERAL



**OPEN WATER FREEDIVER +  
FOUNDATION FREEDIVER**

## TABLE OF CONTENTS

INTRODUCTION TO THE OPEN WATER FREEDIVER COURSE.....	3	Dynamic Apnea (DYN) .....	6
WHAT IS FREEDIVING? .....	4	Dynamic Apnea No Fins (DNF) .....	6
HISTORY OF FREEDIVING.....	4	Static Apnea (STA) .....	6
WOMEN IN FREEDIVING .....	5	Variable Weight (VWT) .....	6
FREEDIVING DISCIPLINES .....	6	No Limits* (NLT) .....	7
Constant Weight (CWT) .....	6	LICENSE AGREEMENT .....	8
Constant Weight No Fins (CNF).....	6	ACKNOWLEDGEMENTS .....	8
Free Immersion (FIM).....	6	DISCLAIMER.....	8

# INTRODUCTION TO THE OPEN WATER FREEDIVER COURSE

Welcome to the RAID Open Water Freediver course.

Whether you're at the beginning of your freediving journey or are an experienced diver wanting to expand your abilities, this course is designed to provide the knowledge and skills you'll need to safely explore the fascinating world beneath the waves and between breaths.

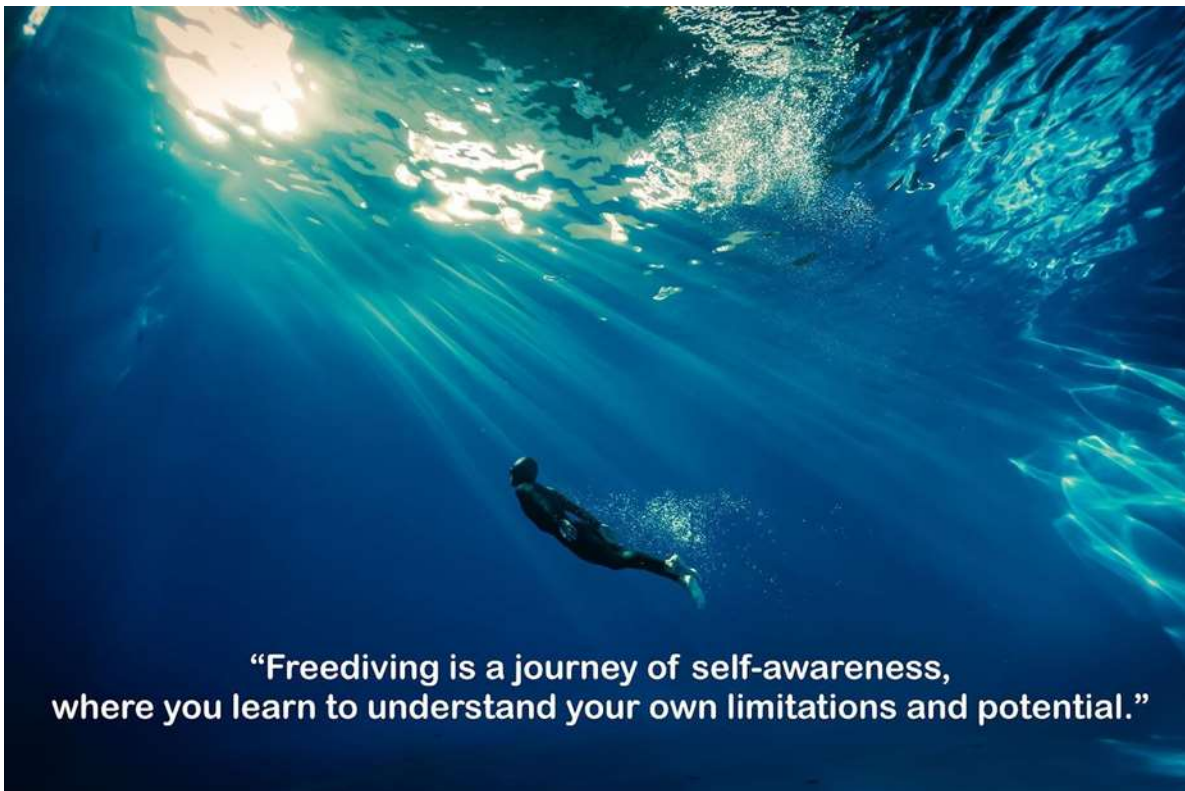
This comprehensive course offers two levels of certification: **Foundation Freediver** and **Open Water Freediver**.

### What this means:

- You will be certified as a Foundation Freediver on meeting the course requirements for this level, even if you are unable to complete the depth / open water skills of the Open Water Freediver Course.
- You can be upgraded to Open Water Freediver at a later date on completion of the remaining skills for the Open Water Freediver course.
- Your instructor and dive center will be able to facilitate this upgrade.

A complete explanation of the skills required for each certification is included in the Confined and Open Water sections.

This innovative format enables your instructor to prioritize each student's goals and capacities in a safe, thorough, and unpressured learning environment.



**“Freediving is a journey of self-awareness,  
where you learn to understand your own limitations and potential.”**

## WHAT IS FREEDIVING?

### WHAT IS FREEDIVING?

Freediving is swimming underwater while holding your breath. It differs from snorkeling in that the emphasis is on time spent underwater. While a snorkeler cruises on the surface, making relatively brief forays below, the freediver uses time on the surface to rest and relax; conserving energy for longer stays at greater depths.

This emphasis on deep relaxation distinguishes freediving from many other physical activities. In fact, for most people, it is the ability to relax - rather than athletic conditioning - that will yield the quickest progress and most enduring improvements in your ability to enjoy the underwater world.

**Recreational freediving** embraces a range of underwater activities; from sight-seeing and wildlife observation to spearfishing and photography.

**Competitive Freediving** is organized into several sub-disciplines, with divers competing for depth, time, and distance with and without fins and weights. Pushing the limits of human possibility, competitive freediving has yielded insights into technique and safety that benefit all who enjoy the sport - whether diving to 10 meters (33 ft) or, as is now common in major competitions, to more than 100m (330 ft).



### HISTORY OF FREEDIVING

The first known evidence of freediving dates back to a culture that lived on the Baltic Sea between 7,000 and 10,000 years ago. Mollusk shells found in archaeological excavations of their dwellings could only have been gathered by freediving.

Another ancient example is found in the Chicharron people, who lived along the coasts of Chile and Peru around 5,000 BC. Researchers found evidence of exostosis\* in their mummified remains - signifying frequent and prolonged exposure to cold water. Additional testing of their bones indicated that up to 90 percent of their diet consisted of seafood - lending further credence to the hypothesis that freediving played a major role in their culture.

## WOMEN IN FREEDIVING

**RAID NOTE:** For an explanation of exostosis, and how to prevent it, see the **Rescue manual** in this course.

To this day freediving remains an important source of livelihood in many coastal and island communities.

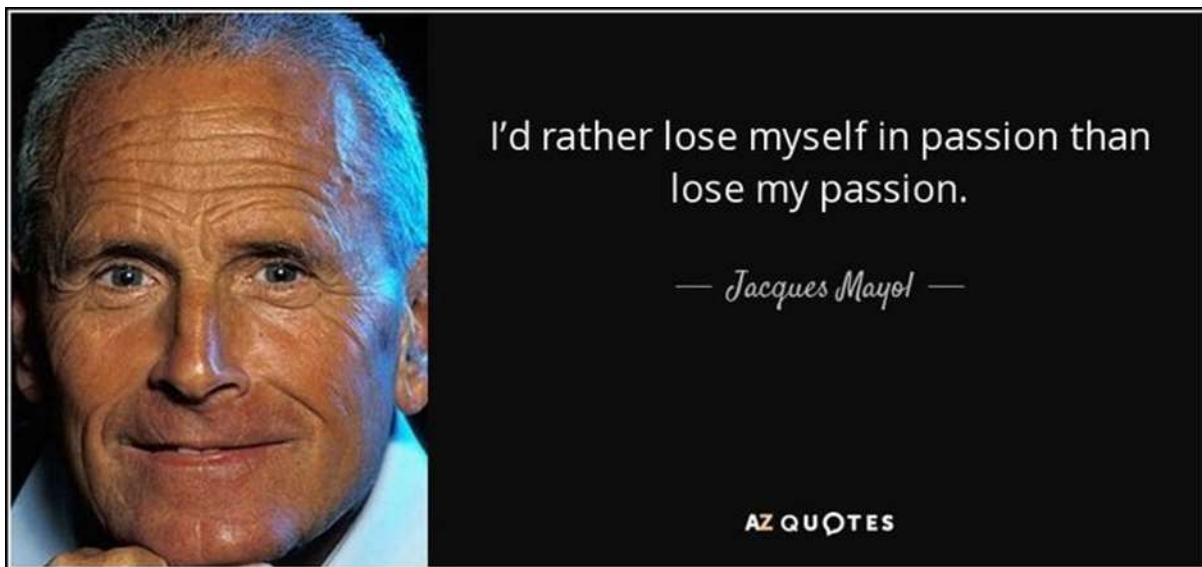
Perhaps the first well-studied freediver of the modern era was a Greek sponge fisherman named Haggi Statti. Of slight build, missing an ear drum and with a hole in the other, and suffering from emphysema, Statti, who the locals claimed consistently dove to depths approaching 100 meters/333 feet, could hold his breath on land for only one minute.

Nonetheless, using a rock tied to a rope (See reference to 'skandalopetra' in the 'No Limits' section below) he successfully searched for and retrieved the lost anchor of an Italian navy battleship from a depth of 76 meters/250 feet. The entire incident was extremely well-documented - with extensive medical reports and witness testimonials.

Despite the meticulous documentation, Haggi's dives are considered part of the legendary lore of freediving, rather than documented world records.

Freediving officially entered the modern era in 1949, when an Italian fighter pilot named Raimondo Bucher dove to 30 meters to win a bet against a scuba diver waiting at that depth. After beating Bucher's record, Enzo Maiorca dominated the scene for the next 25 years. In 1962 he dove past 50 meters, to the disbelief of scientists at that time who thought humans would be crushed by the pressure at such depths.

The 100 meter mark was first broken by Jacques Mayol in 1976, using a weighted sled to go down and inflating a lift bag with compressed air to come back up.



Freediving continues to evolve, with athletes now safely reaching depths in competition that were unthinkable only a few decades ago. In recent years women have begun approaching, and even surpassing, freediving records held by men.

## WOMEN IN FREEDIVING

In 2002 Tanya Streeter set a new no limits depth record of 525 feet/160m. In July of 2003 she broke another men's record - performing a variable weight dive to 400 feet/122m; a record which was broken a year later by Loic Leferme but held as a women's record for nearly seven years, until it was broken by Natalia Molchanova.

## FREEDIVING DISCIPLINES

One of the greatest freedivers of all time, Natalia held 41 world records when she was lost at sea in 2015 at age 53.

The knowledge gained from early pioneers of the sport, and built upon by modern divers and scientific research, enables and informs this state-of-the-art freediving course.

## FREEDIVING DISCIPLINES

### CONSTANT WEIGHT (CWT)

In this discipline the diver wears the same amount of weight to descend and ascend. Using fins for propulsion, constant weight is the standard for recreational freediving and is thoroughly covered in this course.

### CONSTANT WEIGHT NO FINS (CNF)

The same as constant weight but without fins; using a modified breaststroke for propulsion. No Fins is sometimes thought of as the 'purest' form of freediving. This discipline is part of the RAID advanced course.

### FREE IMMERSION (FIM)

Free Immersion is another 'constant weight' discipline, but instead of swimming the diver pulls him or herself up and down a weighted line.

Free Immersion is great for practicing equalization, warming up, and focusing on relaxation. For all these reasons we will practice Free Immersion during this course.

### DYNAMIC APNEA (DYN)

The diver swims horizontally in shallow water using fins. Dynamic Apnea is practiced as a competitive pool discipline, as well as a training exercise in either pool or open water. Dynamics are included in the confined water section of this course

### DYNAMIC APNEA NO FINS (DNF)

The same as Dynamic Apnea above, but the diver is propelled using a modified breast-stroke - without fins. As with CNF (Constant Weight No Fins) above, this is an Advanced Course skill.

### STATIC APNEA (STA)

Static Apnea is holding your breath while floating passively, face-down, on the surface of the water. This is typically a pool discipline, and proper static technique and supervision for STA is covered in the Advanced Course.

**RAID NOTE:** Although STA is not covered in the Open Water Freediver course, we will consider some of the many varied ways to train in order to increase your breath holding ability. Some of these are discussed in the **Breathing for Freediving** section of this course in the **Confined Water Training manual**.

**IMPORTANT:** NEVER practice static breath holds in water unless you are closely monitored by a qualified training partner!

### VARIABLE WEIGHT (VWT)

The variable weight diver holds onto a weight to descend, leaves the weight, and ascends using fins, pulling on a line, or swimming without fins. The descent is very fast, requiring prompt and continuous equalization.

This technique is sometimes used in deep spearfishing, to increase bottom time by conserving effort on the way down. Although there are world records in variable weight, it is not currently sanctioned as part of official competitions.

### No Limits\* (NLT)

Similar to variable weight, the No Limits diver uses a weighted sled to descend, then uses a winch or propulsion device to bring them back to the surface.

While not demanding in terms of swimming ability, the extreme depths reached during No Limits dives tax human physiology in ways that no other discipline does.

No Limits dives are performed mainly in the quest for absolute world depth records and are not part of freediving competitions.

\*A low-tech version of 'no limits' diving, called skandalopetra, was practiced by sponge divers in ancient Greece. They dove holding a hydrodynamically shaped flat stone attached to a rope tended by a partner on the surface. At the completion of a dive the diver would pull on the rope to signal his partner who would then pull the diver, now holding the rope and standing on the stone, to the surface. This practice survives today as the only team-based competitive freediving discipline, though only in dedicated skandalopetra competitions. \*



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## ACKNOWLEDGEMENTS

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**Version:** 1.0

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