

Contributions to Safety in Aquatic Environment

One of the biggest problems all around the world is the high number of deaths by drowning. Dying drowned is to perish in silence since, in most cases, other people are only aware of the accident once it has occurred. Thus, to avoid accidents from happening, we should carry out efficient preventive actions. Unfortunately, there are few studies related to rescue and safety, a topic of interest that should be much more investigated and better know the mechanisms of preventing and acting in water accidents. There is an increasing number of journals in different fields aiming to publish and disseminate knowledge, some focusing on very specific themes. However, as they are part of a big editorial system, most of them end up selecting the works that will have a greater impact in terms of future citations despite, eventually, having less relevance for society. For this reason, we acknowledge TOSSJ the possibility of editing this special issue that we consider of great scientific, technical and social relevance in the area.

This special issue on Aquatic Safety and Rescue aims to be one more rock on the wall of knowledge regarding rescue and lifesaving, helping better understanding the causes that lead to water related accidents. In addition, it proposes to help readers realizing that rescue is not only a social requirement and a profession, but also a sport that brings extra skills and safety to aquatic environment users. As a sport, aquatic rescue is growing year after year but it is still in its first steps in what concerns scientific research. In this issue, Avramidis and Patrinos present a historical cinematic review, exposing movies describing diverse rescue methods. These films illustrate the execution of rescue techniques that, in many cases, are not registered in written documents, allowing a better knowledge of how they were performed. These techniques have been improving over time, especially due to better quality and quantity of available materials, allowing better understanding of the currently used techniques.

There is a saying among professional lifeguards that the best rescue is the one not necessary to accomplish. We agree with this since an adequate preventive work can really prevent accidents from happening. In fact, better knowing the potential risk of an accident is determinant for prevention, with the frequent erroneous perception of risk being ultimately ending in drowning episodes. So, Kevin Moran and colleagues explore the Protection Motivation Theory, focusing especially on children guardians that, unfortunately, are the population that suffers the highest worldwide drowning percentage. If the perception of risk is appropriate to the specific (aquatic) environment, the responsible parties and the users will assume adequate preventive measures and accidents will be avoided. There is still frequently observable an excessive users confidence in high risk situations, preventing rescues from taking place and endangering the life of the drowned and the lifeguard.

Mastering the different rescue and sport skills in closed and open environments improves the knowledge of the aquatic environment and the materials handling according to the context variability. The works of Per-Ludvik Kjendje et al. and Bente et al. analyse the rescue specific skills evidencing very interesting results. The uncertainty and variability of the aquatic environment in open waters imply an adaptation of the propulsive techniques aiming to achieve higher effectiveness. For example, it is of ultimate importance that lifeguards master the swimming skills allowing propelling through waves and/or with clothes, as they decrease performance and increase fatigue. Finally, Baena-Extrema and collaborators present a work on different types of motivations of aquatic rescuers that allow them to practice the sport, minimising drop-out. They have observed that this is perfectly related to the intrinsic motivation of the lifeguards towards their profession, with the vocation being the main pointed out reason for the professional practice of aquatic lifeguards.

This set of works on Aquatic Safety and Rescue has on its base a particular knowledge worthy of dissemination, justifying the use of different specific techniques in the field of professional and sports rescue. It is our belief that this

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special number will allow better understanding of this area of knowledge that needs more and deeper research. We hope that TOSSJ readers will be satisfied with it.

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