

Professor Tonko ŠOLJAN, Ph.D.
(1907 – 1980)
Initiating and leading of HVAR Expedition

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Prof. Tonko ŠOLJAN was an internationally reknown scientist, ichthyologist, and expert in fishery matters, especially in the Adriatic, professor of the generations of biologists, was born on April 18, 1907 in Hvar. He attended primary school in Zadar and Split, and grammar school in Zadar, Dubrovnik and Šibenik, where he graduated in 1925.

Prof. ŠOLJAN started his university studies, enrolling the Natural Sciences College (Biology) at the Faculty of Philosophy, University of Zagreb (1925-1926), and continued in Vienna (1927-1929) and Graz (1929-1930) where he received his Ph.D. in Zoology.

Among his most significant works is the monography "Ribe Jadrana" (Fishes of the Adriatic) which has been already published in 5 editions. Prof. ŠOLJAN initiated and led the scientific Expedition M.V. HVAR and contributed to Marine research and advancement of fisheries among the Adriatic coast. He was also a member of a great number of scientific national and international associations in which he carried a number of responsibilities. Unfortunately, his admirable life suddenly ended on February 18, 1980 in a traffic accident in Sarajevo.

Key words: Professor Tonko Šoljan, HVAR Expedition, Adriatic Sea

Professor Tonko ŠOLJAN was an internationally reknown scientist, ichthyologist, and efficient organiser of scientific work, expert in fishery matters, especially in the Adriatic, professor of the generations of biologists. Professor Tonko ŠOLJAN was born on April 18, 1907 in Hvar. He attended primary school in Zadar and Split, and grammar school in Zadar, Dubrovnik and Šibenik, where he graduated in 1925. Professor ŠOLJAN started his university studies, enrolling the Natural Sciences College (Biology) at the Faculty of Philosophy, University of Zagreb (1925-1926).

Here are some events that strongly influenced Professor ŠOLJAN's later professional

development. The great influence on his work had Mr. Ivan ŠKOMERŽA, initiator and founder of our motor fishing with dragged nets (trawlers) in Croatia, designer of ring nets and founder of Fishing company "Nekton" (1912) in Rijeka.

According to the archives left by Ivan ŠKOMERŽA it is evident that Professor ŠOLJAN was accepted as student to one of Mr. ŠKOMERŽA's trawlers in order to collect sea organisms for zoologic experiments. Mr. ŠKOMERŽA tried to persuade Professor ŠOLJAN to dedicate his studies to fishery thinking that the fishermen are not educated people

and since the fishery has to be developed on scientific bases requires highly educated people.

Therefore, Mr. ŠKOMERŽA considers necessary for Prof. ŠOLJAN to continue his studies abroad (Vienna) in order to enlarge views and experiences. Prof. ŠOLJAN accepted the suggestion and pointed out his need for financial support. From the correspondence held between Prof. ŠOLJAN and Dr. Drago CRNKOVIĆ and records of Mr. ŠKOMERŽA derives the fact that Mr. ŠKOMERŽA was intuitive, liberal-minded and very generous person that supported financially Prof. ŠOLJAN throughout his professional formation. Prof. ŠOLJAN used to call Mr. ŠKOMERŽA "founder of the Croatian modern fishery", (D. CRNKOVIĆ – personal communication).

In 1930 Prof. ŠOLJAN completed his studies in Graz and received his Ph.D. in Zoology. The same year he arrived in Split, where he became a curator of the Biological-Oceanographic Institute (present Institute of Oceanography and Fisheries). Not long after that, he went for his specialisation at the Institute for Marine Biology in Helgoland.

In the period between 1935 and 1941, he was teaching Zoology, Botany, Geology, Mineralogy and Geography at the grammar school in Split. Even today, his former students, so fond of him, nostalgically remember his excellent lecturing and pedagogical approach.

He was also a Principal of Museum of Natural Sciences in Split. During his stay in the Museum he complemented the fish collection, renewed the Zoo, made paths, fences, cages, and the big hawk cage that he made is still in use. At the beginning of the Second World War (in 1941) he was alone in the Museum, so he went in person to slaughter-house to take a meat for the animals (dr. Antun CVITANIĆ – personal communication). Further on, after the war occupation of Split, Prof. ŠOLJAN went to Zagreb (1941), where he accepted a position as the Chief of Department for the Ministry of Fisheries from 1941 to 1943.

Afterwards, from 1943 to 1945, he became the chief of Department for Zoology at the

Faculty of Natural Sciences and Mathematics (former Faculty of Philosophy), at the University of Zagreb and contemporaneously he was director of the Zagreb Museum of Zoology.

After the Second World War, precisely in 1945-1946, he started to work as the head of Department of scientific research and fishery promotion within the Ministry of Maritime Affairs and Fisheries in Zagreb.

At that time, Prof. ŠOLJAN organised a number of stations for Marine research and advancement of Fisheries along our coast. In the period between 1946 and 1947 he was the principal of the Station for advancement of shellfish research in Ston. Later on, from 1947 to 1955, he was the director of the Institute of Oceanography and Fisheries in Split, which included the stations in Rijeka, Dubrovnik, Opuzen and Ston.

In 1956, he was chosen as a professor at the Faculty of Philosophy, University of Sarajevo, where he acted until his retirement in 1970. Unfortunately, his rich and admirable life suddenly ended on February 18, 1980 in a traffic accident in Sarajevo.

Professor Tonko ŠOLJAN contributed to our knowledge of marine fisheries, directing scientific researches towards solving biological and fisheries problems in the Adriatic Sea. Among his most significant works is the monography "Ribe Jadrana" (Fishes of the Adriatic) which has been published in 5 editions.

The first edition was published in Croatian in 1948 as Volume 1 of "Fauna et flora adriatica" published by the Institute of Oceanography and Fisheries in Split.

The second edition was published in English "Fishes of the Adriatic" in 1963 with generous financial support of the Department of the National Science Foundation, Washington D.C., U.S.A.

The third, complemented edition, was published in Croatian in 1965.

The fourth, completed and re-written edition was published in Italian "I pesci dell'Adriatico", in 1975, in Verona, as a part of series "Varia

Grandi Opere” (Selected Great works) by publisher Arnoldo Mondadori from Milan.

The fifth edition was published as re-printed work, in 1995, by publisher “Dom” from Zagreb.

The main aim of the monography “Fishes of the Adriatic” was to enable biologists, ichthyologists, ecologists and all those who are interested to define, in easy and simple way, the species of the fishes in the Adriatic.

The monography contains 437 pages, 782 identifications, 800 pictures and drawings.

There are elaborated 380 species of fishes found in the Adriatic Sea and 5 species that are presumed to be living in the Adriatic.

The first part of the monography represents the key to defining of species, that is based on the differences of the most obvious peculiarities of some fish accompanied by very precise illustrations.

In fact, we can quite define some fish by illustrations and drawings that are so transparent with distinctive morphological characteristics of each species.

In the fourth edition, beside the Latin names there are also Croatian, English, German, French, Spanish and Albanian names. The book also contains two reviews of the fish in the Adriatic according to CARUSO’s and GARMAN-REGAN’s sistem with TORTENESE’s elaboration.

The second significant Prof. ŠOLJAN’s work was “The Fishes of the Mediterranean and Black Sea” that remained uncompleted due to his sudden death.

The biggest scientific enterprise of Prof. ŠOLJAN was the Expedition M.V. HVAR (1948-1949). An idea to organise such expedition appeared in his presentation “Biological problems of Fishery in the Adriatic” he gave on the Zagreb Fishery Conference in 1935.

Prof. ŠOLJAN, in front of such eminent group, as one of the younger participants (he was 28 at the time) pointed out the following: “With this review we only touched on the problems regarding fisheries and biology of the Adriatic Sea”. The Austro-Hungarian Monarchy did not

do anything significant to solve them, because the stations (Austrian station in Trieste, Hungarian station in Rijeka and German station in Rovinj) which Monarchy held on the Adriatic coast complied only the requests of the Universities in Vienna and Budapest and Aquarium in Berlin. Therefore, these problems remain numerous, different and completely open. In the field of fisheries biology, we didn’t inherited anything due to fact that there wasn’t anything done. We are happy to have one part of the world sea and we can not forget that we automatically have to explore and exploit it proportionally” (ŠOLJAN, 1935).

Prof. ŠOLJAN realised this great idea as soon as he got an opportunity i.e. when he took over the duty of the Director of the Institute of Oceanography and Fisheries in Split.

Prof. ŠOLJAN noticed very early fisheries biological problems of the Mediterranean Sea and in the first place those referring to tuna and little tunny which he categorized as under-utilized resources.

In accordance with Biological-Oceanographic Station from Tunis (Salammbô) he organised the expedition of the trawler NAPREDAK into Tunisian open sea in 1949. With adaptation of the ship into tuna purse seiner they successfully caught tunny with tuna net that has been used in Croatia since 1929.

Prof. ŠOLJAN went to Tunis and Israel as an expert sent by FAO-UN in order to help those countries to develop fisheries strategic plan. Besides that, he was a member of numerous scientific national and international associations where he had many important and responsible functions.

He was the president of the Organising Committee on 1st European Ichthyological Congress held in 1973, in Sarajevo. On 3rd European Ichthyological Congress held in 1979, in Warsaw, he was chosen as Honorary member of the European Ichthyological Association.

As an excellent professor, he raised generations of fishery biologists and took constant care of improvement of working conditions of young scientists.

Professor Tonko ŠOLJAN was awarded many times for his dedicated scientific, pedagogical and humanitarian works. Here are some of them:

- **Order of Work**, 1949, for successful organisation and directing of Fishery-Biology Expedition HVAR and successful negotiations with Italian Government regarding Fishery in the Adriatic Sea

- **Order of the Tunisian Kingdom "Nichan iftikhar"**, 1951, for successful introduction of modern methods of tunny-fishing in Tunis

- **Order of Merit with silver rays and Award of The Republic of Bosnia and Herzegovina** together with an **Award of City Council of Sarajevo**, for achieved results in scientific work

Prof. ŠOLJAN was a member of a great number of scientific, as well as expert, national and international associations in which he carried a number of responsibilities.

From 1927, he was the member of the Croatian scientific association in Zagreb.

In 1949, Prof. ŠOLJAN was chosen as an associate Member of Yugoslav Academy of Science and Art, at present Croatian Academy of Science and Art. He also became the regular member of the Academy of Science and Art of the Republic Bosnia and Herzegovina (1967).

Professor T. ŠOLJAN as dynamic creator, open minded and the great sea expert realised his dream and ideas through scientific exploring of the Adriatic.

He is one of the most significant scientists regarding Croatian modern Fishery and his work mustn't be forgotten.

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SAŽETAK

Znanstvenik svjetskog ugleda, ihtiolog, poznavalac ribarstvene problematike, posebno jadranske, pedagog i odgajatelj generacija biologa, akademik Tonko ŠOLJAN, rođio se 18. travnja 1907. g. u Hvaru. Osnovnu školu pohađao je u Zadru i Splitu, a gimnaziju u Zadru, Dubrovniku i Šibeniku gdje je maturirao 1925.g. Studirao je prirodoslovnu skupinu predmeta (biologija) na Filozofskom fakultetu Sveučilišta u Zagrebu (1925-26), u Beču (1927-29), te u Gracu (1929-1930), gdje je apsolvirao i doktorirao 1930.g. iz područja zoologije. Među njegovim najznačajnijim djelima je monografija "Ribe Jadrana", koja je već doživjela pet izdanja. Najveći znanstveno-istraživački poduhvat akademika ŠOLJANA bila je ribarstveno-biologijska ekspedicija HVAR 1948. i 1949. godine.

Akademik ŠOLJAN je doprinio unapređivanju morskog ribarstva usmjeravajući znanstveno-primjenjiva istraživanja u rješavanju bioloških i ribarstvenih problema Jadranskog mora.

Bio je član velikog broja znanstvenih i stručnih, nacionalnih i internacionalnih društava, u kojima je obnašao niz visokih i odgovornih funkcija. Na žalost, njegov život je prekinut u prometnoj nesreći 18. veljače 1980.g. u Sarajevu.

