

The photographs in the cover were contributed by Prof. Olga Haenen, Prof. Ivona Mladineo and Dr. Snježana Zrnčić.

# West Balkans Regional Aquatic Animal Disease Diagnostic Manual

by

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under

The FAO Project TCP/RER/3402  
Assistance to Western Balkan Countries for Improving Compliance to International Standards on  
Aquatic Animal Health

**Zrnčić, Snježana and Radosavljević, Vladimir. 2017.** *West Balkans Regional Aquatic Animal Disease Diagnostic Manual (FAO TCP/RER/3402)*. Rome, FAO. 100 pp

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ISBN 978-92-5-109642-0

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## Preparation of this document

The need for a coordinated regional approach to aquatic animal health and aquatic biosecurity was expressed and this goal realized through the Food and Agriculture Organization of the United Nations (FAO) Technical Cooperation Programme Project TCP/RER/3402 "*Assistance to Western Balkan Countries for Improving Compliance to International Standards on Aquatic Animal Health*". This regional project TCP/RER/3402 was based on a consultative and consensus-building process among countries of the West Balkan Region. It addresses the concerns expressed by the five participating FAO member countries in the region (i.e. Bosnia and Herzegovina, the Republic of Croatia, Republic of Macedonia, Montenegro and the Republic of Serbia), as having highest priority to assist all participating countries in developing capacity to implement international standards, i.e.: (i) risk analysis; (ii) disease surveillance, monitoring and reporting; (iii) disease diagnosis (including regional reference laboratories); and (iv) information and networking. The project's overall objective is to strengthen regional and national aquatic biosecurity governance and capacities for dealing with transboundary aquatic animal diseases (TAADs), and in the process improve compliance with international health standards for aquatic animals so that countries are better able to maintain and improve national aquatic animal health status, harmonize standards regionally, and better comply with the health standard requirements of regional and international trading partners.

This publication was conceived during the working group discussions that were carried out during the second regional workshop of the above project – regional workshop 2: "Improving Capacity for Diagnosis of Disease of Fish and Molluscs" held at Banja Luka, Bosnia and Herzegovina, from 20 to 24 October 2013 (See Annex 4).

This document represents one of the documentation outputs of the project TCP/RER/3402. It supports the FAO Strategic Objective 4 on Enable inclusive and efficient agricultural and food systems and Strategic Objective 5 on Increase the resilience of livelihoods to threats and crises. The finalization of this report was under the technical oversight of Dr Melba B. Reantaso, Aquaculture Officer, Aquaculture Branch (FIAA), Fisheries and Aquaculture Department of FAO and lead technical officer of TCP/RER/3402. Technical and English grammar editing was provided by Dr James Richard Arthur. All photographs were provided by Dr Snježana Zrnčić and Dr Vladimir Radosavljević unless otherwise indicated.

## Abstract

This West Balkans Regional Aquatic Animal Disease Diagnostic Manual is a handbook whose main purpose is to facilitate the daily duties at aquaculture farms and provide a useful reference that will answer the majority of practical questions posed by official veterinarians, veterinary inspectors and fish health experts in five Western Balkan countries (Bosnia and Herzegovina, the Republic of Croatia, The former Yugoslav Republic of Macedonia, Montenegro and the Republic of Serbia). It is developed through the Food and Agriculture Organization of the United Nations (FAO) Technical Cooperation Programme Project TCP/RER/3402 “*Assistance to Western Balkan Countries for Improving Compliance to International Standards on Aquatic Animal Health*”, a regional project that is based on a consultative and consensus-building process. This is a diagnostic guide for the surveillance, clinical inspection and sampling at aquaculture facilities with the aim to detect the diseases listed by the World Organization for Animal Health (OIE) and the European Union (EU) according to their guidelines and standards, as well as other diseases of economic importance. Both standards include monitoring for diseases, the obligatory notification of clinical signs in registered farms and sampling by official veterinarians, activities that unconditionally require knowledge on diseases, farm production, normal appearance of the farmed species, and recognition of any changes that could lead to the suspicion of disease occurrence. Thus, this manual provides essential information on how to perform clinical inspections of fish and mollusc farms, how to recognize unusual behaviour of fish; how to select the most appropriate specimens for laboratory examination; and how to collect, pack and ship samples to the diagnostic laboratory. The laboratory procedures employed to identify the various disease agents are described, and information on the viral, bacterial and parasitic diseases of fish and molluscs in the Western Balkans is provided. The information presented should assist countries to maintain and improve their national aquatic animal health status, harmonize standards regionally, and better comply with the health standard requirements of regional and international trading partners.

(Key Words: Aquaculture, Aquatic Animal Diseases, Diagnostics, Guidelines, Health Standards, Notification, West Balkan)

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