

# PANORAMA

Thematic portfolio



Strengthening preparedness  
and resilience to emergencies



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# PERSPECTIVES

# DOSSIER

# AROUND THE WORLD

*New diseases of aquatic animals emerge frequently and may threaten aquaculture, fisheries and the environment. There are numerous examples of emerging diseases that have negatively impacted food security, profitability, livelihoods and biodiversity [1].*

Infection with tilapia lake virus (TiLV) is an emerging disease of particular concern because tilapia are the second most important group of farmed fish worldwide and critical for food security in many countries. The TiLV was first described in 2014 after it was found to be the cause of mass tilapia mortalities in Israel [2]. The disease has since been reported from countries in Africa, Asia and the Americas.

Emerging diseases are challenging because so little is known about them when they first occur. However, for responses to be effective, prompt (and perhaps costly) actions are required.

The OIE aims to assist its Members by identifying important new diseases and sharing available information to reduce their spread. Through the [OIE Aquatic Animal Health Standards Commission](#), new disease threats are routinely identified and brought to the attention of OIE Members.

An excellent example of how the OIE community can work together to combat the threat of emerging diseases of aquatic animals

For TiLV, the OIE Aquatic Animals Commission advised OIE Members of the threat soon after it became known to science. The Commission developed a disease card [3] and OIE Members were encouraged to report any detections so a clear picture of its distribution could be developed.

Listing a disease on the OIE List of diseases is an important step to initiate the development of trade standards that support OIE Members in maintaining freedom from a disease. An assessment for listing TiLV was prepared. However, TiLV did not meet the requirements for listing because the diagnostic methods had not been sufficiently evaluated. To address this issue, the OIE formed an *ad hoc* group to further evaluate the available diagnostic methods. This group, led by the [OIE Collaborating Centre for New and Emerging Diseases](#), in Australia, has brought together laboratories from across the world. It is an excellent example of how the OIE community can work together to combat the threat of emerging diseases of aquatic animals.

<http://dx.doi.org/10.20506/bull.2020.2.3150>

## DOSSIER

# OIE actions on emerging diseases of aquatic animals

## The example of tilapia lake virus

### KEYWORDS

#animal disease, #aquatic animal, #biosecurity, #emergency preparedness, #OIE Ad hoc Group, #OIE Aquatic Animal Health Standards

Commission, #OIE Collaborating Centre, #risk, #tilapia, #World Organisation for Animal Health (OIE).

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*Tilapia farming on Lake Volta, Ghana. © E. Peeler*

#### REFERENCES

1. Peeler E.J. & Ernst I. (2019) – A new approach to the management of emerging diseases of aquatic animals. *In* The role of aquatic animal health in food security (I. Ernst & E.J Peeler, eds). *Rev. Sci. Tech. Off. Int. Epiz.*, **38** (2), 537–551. <https://doi.org/10.20506/rst.38.2.3003>.
2. Eyngor M., Zamostiano R., Tsofack J.E.K., Berkowitz A., Bercovier H., Tinman S., Lev M., Huryitz A., Galeotti M. & Eldar A. (2014). – Identification of a novel RNA virus lethal to tilapia. *Journal of Clinical Microbiology*, **52** (12), 4137–4146. <https://doi.org/10.1128/jcm.00827-14>.
3. World Organisation for Animal Health (2020). – [Infection with tilapia lake virus \(TiLV\) – a novel orthomyxovirus-like virus](#).

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