

2015-2016 年觀賞魚疾病監測與病例診斷

生物研究組

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摘要

我國觀賞水族動物之繁養殖技術立於全球領先地位，全臺水族周邊產業產值至 2014 年底達 50 億新臺幣，預估至 2017 年更高達 75 億新臺幣，是臺灣最具競爭優勢之精緻農業之一。為提升我國觀賞魚類國際市場競爭力，自 2015-2016 年協助屏東農科園區進駐之觀賞水族養殖廠及其衛星場定期採樣監測 OIE 表列 15 種重要疾病(魚類疾病 7 種；與甲殼類 8 種)，結果 2015 年共監測 113 場區，2016 年共監測 107 個場區；共執行分子檢驗 38,356 件，包括觀賞魚 8,503 件及觀賞蝦 29,853 件。其中魚類錦鯉疱疹病毒核酸陽性率為 1.12% (19/1695)及嘉納虹彩病毒病為 0.21%(26/12403)；甲殼類以白點病毒核酸陽性率為 0.31%(18/5857)及傳染性皮下及造血器官壞死症病毒為 1.78%(61/3428)最高。監測魚場病例診斷共 315 例(2015 年 133 例；2016 年 182 例)。目前已有 13 家觀賞魚(蝦)(5 家錦鯉場；8 家觀賞蝦場)通過兩年疾病長期監測合格登錄場。

Diseases monitoring and diagnosis of ornamental fish

from 2015 to 2016

Yi-Ping Lu

Abstract

Taiwan is well-known internationally for its aquarium animal breeding and propagation industry. In total, the Taiwanese aquarium trade reached up to 5 billion New Taiwan Dollars (NTD) by the end of 2014, and is estimated to reach 7.5 billion NTD in 2017. It is one of the most competitive high-end agriculture industries in Taiwan. To enhance the competitiveness of the Taiwanese ornamental fish industry in the international market, we provided the aquaculture operations located at the Pingtung Agricultural Biotechnology Park with routine sampling and monitoring of 15 kinds of important diseases listed in the OIE table (seven fish and eight crustacean diseases) from 2015 to 2016. Disease monitoring was conducted in 113 aquaculture farms in 2015, and 107 in 2016. A total of 38,356 samples (8,503 samples for ornamental fish and 29,853 samples for ornamental shrimp) were examined with molecular biological assays. In ornamental fish, the highest observed disease prevalence was 1.12% (19/1695) for Koi herpesvirus (KHV) and 0.21% (26/12403) for red seabream iridovirus disease (RSIVD). In ornamental crustaceans, the highest observed disease prevalence was 0.31% (18/5857) for white spot syndrome virus (WSSV) and 1.78% (61/3428) for infectious hypodermal and hematopoietic necrosis virus (IHHNV). For aquatic animal disease diagnosis, 315 cases were received (133 in 2015; 182 in 2016) over the past two years. Currently, 13 ornamental aquatic animal farms (five koi farms; eight shrimp farms) have been certified to be free of diseases through this 2-year monitoring span.