Benjamaporn Wiriya 2013: Fish-borne Trematodes in Cultured Nile Tilapia (*Oreochromis niloticus*) and Wild-Caught Fish from Thailand. Master of Science (Veterinary Parasitology), Major Field: Veterinary Parasitology, Department of Parasitology. Thesis Advisor: Associate Professor Sathaporn Jittapalapong, Ph.D. 81 pages.

Fish-borne zoonotic trematode (FZT) infections affect the health of more than 18 million people around the world, particularly in Asian countries. Nile tilapia (Oreochromis niloticus) is a white meat fish for which there is an increasing national and international market. The objective of this study was to determining the prevalence of FZT metacercariae infections in Nile tilapia from cage and pond aquaculture systems and in wild-caught fish from Suphan Buri, Nakhon Pathom and Chachoengsao provinces, Thailand. Fish were collected from four cages in Suphan Buri and four ponds in Nakhon Pathom provinces between September-October 2011 and in April-July 2012 and wild-caught fish were collected in July 2012. All fish was examined for metacercariae by a pepsin digestion and the metacercariae were identified using morphological and molecular methods. During the first sampling of tilapia, the prevalence of metacercariae in fish which were 2.5% in cage culture and 10% from pond culture systems. During the second sampling, 2.0% of tilapia from cage culture whereas none of fish from ponds contained metacercariae. A total of 80 out of 150 wild-caught fish (53.3%) was found infected with metacercariae, mostly the zoonotic trematodes had species Stellantchasmus falcatus, Haplorchis pumilio and Procerovum varium. The results revealed a low risk for FZT in cultured Nile tilapia from cage and pond aquaculture systems. However, the high prevalence of FZT in wild-caught fish indicated a high potential for spillover from wild reservoir hosts and underscores the need for vigilance and good management practices by the aquaculture sector.

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