

COMPLETION REPORT

Culture and Climate in the Construction of Koi Aquaculture in Japan and Singapore: 1965-2016

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Despite the impression from foreigners that nishikigoi are a Japanese product, my research found that nishikigoi is actually Niigata's Prefectural specialty product, alongside rice. Most Japanese do not consider the nishikigoi to be part of the Japanese identity the same way foreigners believe nishikigoi is part of the Japanese culture – nishikigoi is instead a product that is at least 80% exported with minimal domestic consumption, and most Japanese believe owning land is a prerequisite to nishikigoi keeping. Part of the All Japan Nishikigoi Promotion Association (JNPA)'s goals is to raise awareness and appreciation of nishikigoi in the domestic market by breeding tank-sized nishikigoi that is more suitable for apartment raising.

I had found that science and culture play intertwining roles in the production of scientific knowledge. The differences in the nishikigoi aquaculture practices in Niigata, Japan, versus in Singapore exemplify this. While both countries were highly regulated, exporting regulations in Niigata had only recently been formulated in accordance to other countries' import regulations, but also by taking farmers' needs & practices into consideration. Farmers and Fisheries research officials in Japan have a more cordial relationship, and Fisheries research officials are more flexible in implementing their regulations. Singaporean hobbyists have the impression that nishikigoi's development are due to the heavy snowfall in Niigata; but I had found that many farmers had traditionally sheltered nishikigoi in winter, therefore minimizing the effects of harsh winter temperatures and heavy snow.

Scientific research currently ongoing in Niigata actually involves disease pathology, breeding experiments and genetic modification in order to manipulate the sex of nishikigoi carp to improve disease testing, increase predictability and understanding of basic colouration genetics, and increase the profitability of nishikigoi respectively. All of this scientific research might utilize other fish research as an application, but usually have no further non-nishikigoi application. The mediation of production of knowledge through science and knowledge is done by technocrats in Japan. By definition, technocrats are experts in a field working in a public office or role. In this case, several scientists work in the Niigata Freshwater Fisheries Research Station, and mediate between farmers and academic scientists, but also farmers themselves perform public roles in the breeding of nishikigoi for market, expertise that the Research Station officials acknowledge that they themselves do not possess. This means that the definition of technocrat is expanded in the Japanese context, showing cultural demands on scientific research. This affects the public perception of aquaculture research. It shows the diversity of biopolitics in Japan, which thus shows the resilience of aquaculture in Japan can respond to challenges in climate change and global warming.

Publication of the Results of Research Project:

Verbal Presentation (Date, Venue, Name of Conference, Title of Presentation, Presenter, etc.)
Thesis (Name of Journal and its Date, Title and Author of Thesis, etc.) Thesis, Nanyang Technological University, December 2017
Book (Publisher and Date of the Book, Title and Author of the Book, etc.)