The Tasmanian Salmon Industry: Harms and Regulation

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Abstract

The Tasmanian salmon industry has long been contentious. Debates aired in the media reveal differences in opinion amongst government, industry, and community groups. With the recent publication of Andrew Flanagan’s 2021 book, *Toxic: The rotting underbelly of the Tasmanian salmon industry*, the broader Australian public has become increasingly aware of the issues associated with the industry. This briefing paper examines the state of the Tasmanian salmon industry, the associated harms and issues, and steps to better regulate its activities. It concludes by highlighting the need for further research on the environmental impacts of salmon farming and the adequacy of governing bodies’ efforts to regulate and monitor the industry.

Introduction

Australia does not have a native salmon population, yet the southernmost state of Tasmania has a successful salmon farming industry. A 2017 report highlighted that the industry employed over 5,000 people in the state, mostly full-time, and had an approximate value of $800 million (Minshull & Browne, 2017). Recently, COVID-19 has had an impact on salmon prices globally, with reduced demand from the food services sector. However global aquaculture production is expected to increase overall in 2021 – in part because of emerging producer countries like Australia (Mobsby, Steven, Curtotti, & Dylewski, 2021). In a report titled *Sustainable Industry Growth Plan for the Salmon Industry*, the Tasmanian Government has outlined plans to grow the Tasmanian industry’s annual revenue to one billion dollars by 2030 – a target that is seen as ‘conservative’ (Department of Primary Industries, Parks, Water and the Environment (DPIPWE), 2017).
There are, however, several concerns relating to the operation of the industry. Key concerns include the adequacy of monitoring, the independence of research – with scientists reporting feeling ‘pressured’ by industry – and the transparency of the industry’s operations (Minshull & Browne, 2017). These concerns are compounded by broader concerns regarding the industry’s negative environmental impact in the state.

The issues relating to the salmon industry were first brought to the attention of the wider public in 2016 with the ABC’s Four Corners’ episode of ‘Big Fish’ (Four Corners, 2016). Since this exposé, the operation of salmon farms in the state has been viewed as increasingly contentious. The recent release of a book on the ‘rotting underbelly’ of the Tasmanian salmon industry by Tasmanian author, Richard Flanagan (2021), has again thrown the industry into the spotlight.

The Industry

State sanctioned commercial farming of Atlantic salmon has been taking place in Tasmania since the mid-1980s. The first commercial harvest occurred in 1986 as a collaboration between the State Government and private salmon producers (Environment and Communications References Committee (ECRC), 2015), and weighed 55 tonnes. Today, three main commercial producers operate in the state; Tassal, Huon and Petuna. Together they produce upwards of 60,000 tonnes of salmon each year (Lyle, 2019).

Atlantic salmon are naturally anadromous, meaning they are born in freshwater, but migrate to the ocean for several years, before returning upriver to breed. To replicate this Tasmanian salmon are hatched in inland hatcheries, where they spend the first 12-18 months of their life in freshwater tanks. As they grow into young adults they are transported to marine cages in saltwater grow-out zones (Tassal Group, 2020). Generally, these grow-out zones are located in shallow coastal areas where the waters are calm enough for the infrastructure required, while still allowing producers to take advantage of the natural flow of waterways for waste removal. The consequence of this location is that large quantities of untreated biowaste from fish farms, such as excess food and faeces, is allowed to enter directly into Tasmania’s waterways. This untreated biowaste can cause a myriad of problems, including, as Flanagan (2021) argues, harmful algal blooms, triggered by excessive amounts of nitrogen entering the waterways.

Salmon is produced in several areas across the state but is concentrated heavily in South-East Tasmania (see Figure 1.) However, one of the most controversial farm sites is Macquarie Harbour on the state’s West Coast. Although salmon has been produced in Macquarie Harbour since the industry began, in recent years, the harbour has experienced a large expansion in
operations. This industrial expansion is cause for concern because roughly one third of the harbour is within the Tasmanian Wilderness World Heritage Area (Environmental Protection Authority (EPA), 2017).

Frances Bender, CEO of Tasmania’s second-largest salmon producing company, Huon Aquaculture, gave an interview for Four Corners’ ‘Big Fish’, in which she disclosed a deep concern about the state of salmon farming in the state in general, and in Macquarie Harbour in particular. One of the largest concerns for the area is the decrease in overall dissolved oxygen levels in the water. The EPA (2017) states that the increase of fin-fish aquaculture in the harbour is likely a contributor.
**Issues**

The Tasmanian salmon industry is associated with manifest economic benefits as well as considerable environmental harm. Not only is the industry likely a causative factor in the development of algal blooms in waterways around the state, as well as decreasing dissolved oxygen levels in Macquarie Harbour, the 2015 Senate inquiry into the industry reported its potential negative impact on waterways through deteriorating water quality, damage to the waterway’s surrounding environment and the introduction of pest species (ECRC, 2015). The Tasmanian salmon industry is therefore controversial, due to contention between the industry’s perceived status as a major employer in the state and its association with environmental harm.

A pamphlet released by Tassal (2016) ahead of their Okehampton Bay expansion included a quote from an employee stating that there was a high level of local support for the industry due to the employment opportunities it provides. However, several social media groups, such as Wild Fishers for Sustainable Salmon Farms in Tasmania’s Coastal Waters, which has over 700 members, show this is not strictly the case. Additionally, the opening chapter of Flanagan’s book outlines his perspective of the issue as a Bruny Island local affected by the expansion of salmon farming operations in the area. A study by Minshull and Brown (2017) also found a disparity between the desires of the Tasmanian community and the outcomes provided by salmon companies and the government. In particular, it was found that 88% of survey participants believed that the labelling on Tasmanian salmon products should display all chemicals given to the fish. This finding was not implemented by the industry.

**Regulation**

Until 2016, the regulation of the salmon industry fell under the jurisdiction of Department of Primary Industries, Parks, Wildlife and the Environment (DPIPWE). However, concerns were raised regarding the independence of regulation. A representative of the Environmental Defenders Office stated that the DPIPWE’s Marine Farming Branch was responsible for both the promotion and regulation of the industry; asserting these were ‘potentially conflicting roles’ (ECRC, 2015). Prior to 2016, the marine and inland sectors of the industry were governed under separate legislation. The inland fisheries, which included the hatcheries that supplied marine farms, were regulated under the *Inland Fisheries Act 1995*, while the marine sector was regulated under the *Living Marine Resources Management Act 1995* (LMRMA) and the *Marine Farming Planning Act 1995* (MFPA).

Changes to the regulatory framework occurred in 2016, under the *Finfish Farming Environmental Regulation Act 2017* (Finfish Act). Under the Finfish Act, regulatory powers...
concerning the planning and development of farms remained the jurisdiction of the DPIPWE, however the powers of environmental regulation were transferred from the DPIPWE to the Environmental Protection Authority (EPA). This new legislation requires that salmon producers obtain an Environmental Licence. The Director of the EPA determines environmental management components that must be adhered to, specific to the site of the fish farm. The government has also since further strengthened the EPA’s regulatory abilities by establishing the industry levy funded Finfish Farming (Compliance and Monitoring) Unit within the Authority. The Unit is intended to ensure the EPA has the capacity to adequately monitor and regulate the Tasmanian salmon industry as it grows (DPIPWE, 2017).

Another part of the Tasmanian Government’s commitment to improving the monitoring and regulation of the salmon industry is the announcement of the implementation of a Tasmanian Salmon Industry Scorecard. The purpose of the scorecard is to benchmark Tasmania’s environmental monitoring regime against international best practice (DPIPWE, 2017). However, despite the Government and industry having made large-scale changes to how the salmon industry is governed, there are still concerns regarding the independence of monitoring and regulatory bodies.

The Marine Farming Planning Review Panel, the independent advisory body tasked with providing the minister of the DPIPWE advice about whether or not to approval new farm applications, and the conditions for doing so, is argued to be anything but independent, with Flanagan (2021) labelling the panel the ‘elaborate window dressing of a rogue industry’ (p. 27) and citing a former member of the panel who claimed it is ‘a complete rubber stamp’ (p. 39).

It has also recently come to light that, although the EPA is the independent environmental regulator of salmon farming operations, the Authority is required by legislation to adhere to the Sustainable Industry Growth Plan for the Salmon Industry to see the industry double in Tasmania in the next decade. Additional concerns surrounding the lack of community consultation in regard to Environmental Licence conditions also persist (Woodruff, 2020).

Conclusion

Whilst the Tasmanian salmon industry has experienced large-scale regulatory change the industry is still associated with serious environmental harms, as well as issues pertaining to the regulation and monitoring of the industry. The ongoing and increased contention surrounding the industry indicates a need for further research on both the environmental impact of the industry, as well as the adequacy of governing bodies.
About the Author

Kiera Charles is a graduate of the University of Tasmania. She first became interested in Green Criminology after taking a unit on the subject in the third year of her undergraduate degree. She undertook research about the debates and controversies associated with the Tasmanian salmon industry as part of her Honours degree in Criminology. Since then, she has been involved in further research about the Tasmanian and global salmon industry, exploring the harms and efforts to regulate the industry.

References


