CHAPTER TWO

CONCERNS REGARDING THE IMPACT OF REVISED QUARANTINE ARRANGEMENTS

Salmonids in Australia
The Aquaculture Industry
Concerns in Relation to the Potential Consequences of the Decision
Other Issues

Introduction

2.1 Australia commands a premium in the international market for food products as a result of its disease free status. Should diseases not currently found in fish be introduced into Australia as a result of the relaxation of quarantine measures, the consequences are potentially severe, both in terms of the health of the animal population and the resultant economic costs.

2.2 AQIS argues that, as a result of the IRA process, the amended measures have substantially tightened Australia's aquatic and marine quarantine security:

> It is in our view unarguable that, collectively, these measures have substantially tightened Australia's marine and aquatic security. It is not the end of the process. As resources become available AQIS will be examining existing measures applying to a range of other aquatic animal products including crustaceans, molluscs and other aquatic invertebrates.[1]

2.3 However, significant concerns have been expressed by some sectors of the industry. The following comment is indicative:

> Obviously, industry is disappointed with the decision that has been made. That disappointment is on three levels. The first one is the decision itself, which reverses the 1996 decision and, in so doing, exposes the industry to what we believe is an avoidable and unacceptable level of risk.[2]

> A worst case scenario of an introduction of disease that wiped out salmonid fisheries completely would be a billion dollars over five years.[3]

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1 AQIS, Evidence, RRAT, 24 September 1999, p 25

2 Mr Anthony Smithies, Tasmanian Salmonid Growers Association, Evidence, RRAT, 5 October 1999, p 98

3 Mr Ray Walker, Recfish Australia, Evidence, RRAT, 24 September 1999, p 98

2.4 Some concerns expressed in submissions related to the perceived dismissal of concerns of the aquaculture and recreational fishing industries, with no guarantee of high standards of protection, as a result of AQIS' findings:

> The risks to the environment and to native fish populations have been largely dismissed by generalised statements to the effect that these diseases have not been reported in native fish populations, and hence significant effect on the natural environment is not expected. The risks to the salmonid population have been grossly played down, and the consequent concerns of the aquaculture and recreational fishing industries have been largely dismissed.[4]

Salmonids in Australia

2.5 Australia has both native and introduced salmonids. The introduced species are brown trout, introduced from Europe, and rainbow trout, brook trout, Atlantic salmon and chinook salmon introduced from North America. As far as it is known the fish are free from serious pathogens and parasites and are considered to be among the most disease and parasite-free populations of these species anywhere in the world.[5]

2.6 Of these species, brown, brook and rainbow trout have established self-sustaining wild populations, while wild populations of Atlantic and chinook salmon are sustained by release of hatchery-bred fish. Although chinook salmon is found only in Victoria, the other species are found both in the wild and in aquaculture populations in most states and territories, with the exception of Queensland and the Northern Territory.[6]

2.7 Native salmonids comprise 25-30 species - small galaxias, minnows, darters, smelt, mudfish and associated genera, and the larger Australian grayling. These fish are primarily important in conservation terms.[7] Native salmoniforms, or galaxids, are found in south eastern Australia and the south west of the Western Australia. Recently it has been argued that these fish do not belong in the same order of salmoniformes with the introduced salmonids. Nevertheless they generally remain susceptible to the same diseases. Four of the native species are listed as endangered, and a further three are listed as threatened.[8]

2.8 All of the species of salmonids which form the basis of the recreational fisheries were originally introduced into Australia, some as long ago as the early 1800s. Many populations of trout have since established themselves as self-reproducing 'wild' populations which do not require supplementary stocking. In many

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4 Tassal Ltd, Submission 41, p 4

5 Dr B Pratt, Submission 22, p 2

6 AQIS, *Import Risk Analysis on Non-viable Salmonids and Non-Salmonid Marine Finfish*, July 1999, pp 44-45

7 ibid

8 ibid, p 50

waters which are suitable for trout and salmon, but where reproduction cannot or does not occur naturally, stocking of hatchery reared fish has taken place over long periods of time. Both wild and stocked trout and salmon populations are the basis of recreational fisheries in all of the areas listed above.[9]

The Aquaculture Industry

2.9 Most concern about the relaxed measures for salmon was expressed by stakeholders in Tasmania, Victoria and southern New South Wales. The major industries in these areas are salmon production in Tasmania, the trout industry in Victoria and New South Wales and the recreational fishing industry in all three states.

2.10 Aquaculture began in Tasmania in the mid 1970s, with the establishment of two trout farms. Smolt entering the State was quarantined over a lengthy period to ensure that no diseases were imported. The Tasmanian aquaculture industry now produces a range of products which it exports to a number of countries. The major market for Atlantic salmon is North Asia. The Tasmanian commercial aquaculture industry is worth $120 million per annum.[10]

2.11 Salmonid production in Australia, based on the introduced Atlantic salmon, operates at the edge of the climatic range for salmonid survival. The salmon was last imported live into Australia in the early 1960's for the establishment of domestic populations. For this reason, the majority of Australian commercial salmonid production is concentrated in Tasmania, where water temperatures are cooler, and to a lesser extent, in the alpine and sub-alpine regions of southern New South Wales and Victoria. The primary recreational salmonid fisheries, nearly all of which target brown and rainbow trout, occur throughout Tasmania, over large parts of Victoria, in the Snowy Mountains and New England areas of New South Wales and to a lesser extent in Western Australia and South Australia.

2.12 There are eleven hatcheries in Tasmania - three major Atlantic salmon hatcheries, six rainbow trout and two trout/salmon. Hatcheries provide juvenile fish to both freshwater lakes and saltwater farms.[11]

2.13 The farming of Atlantic salmon in Tasmania began in 1985 through a joint venture between the State government, a Norwegian company Noraqua, and a group of private Australian companies. Currently there are seven Atlantic salmon farming companies in Tasmania, of which three dominate the market - Tassal, Aquatas and Nortas Aquaculture.[12] The first commercial production took place in Tasmania in 1986-87.[13] Sea-cage farming of Atlantic salmon and rainbow trout is the major part of

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9 Australian Fishing Tackle Association, Submission 36, pp 2-3

10 Tasmanian Government, Submission 42, p 3

11 ibid, p 14

12 Industry Commission, *Australian Atlantic Salmon - Effects of Import Competition,* 20 December 1996, p 7

13 WTO Panel Report, p 3

the Tasmanian aquaculture industry.[14] Production of Atlantic Salmon has grown from about 20 tons in 1986-87 to around 6,192 tons in 1994-95. Output for 1997-98 was valued at $A63.6 million, making it the third highest value aquaculture industry in Australia.[15]

2.14 The Australian market for domestic-produced salmonids in 1997-98 was about 7,000 tonnes. Australia exports about one third of its salmonid production volume, mainly to Japan, with the remainder being consumed domestically. There has been a shift to increased domestic supply, as producers have redirected output from the export market to the domestic market. ABARE estimates the size of the domestic market to be around 8,600 tonnes in 1998-99.[16]

2.15 In 1997-98 the domestic market imported approximately 56,000 tonnes of all fresh, chilled and frozen edible fish products, 47,000 tonnes of fish for other purposes, particularly bait, and about 6.5 million ornamental fish.[17]

Commercial Significance of Aquaculture

2.16 The commercial aquaculture industry is estimated by the Tasmanian Government to be worth $120 million per annum and set to increase its annual turnover by $300 million by 2005.[18] Salmonid aquaculture in Tasmania is undergoing a major expansion as additional water for finfish farming becomes available through planning developments. According to the Tasmanian Government, this expansion is identified as a primary opportunity for growth:

> The current value of salmonid aquaculture is over $100 million per annum. Projections are for this to double by 2000 and to increase by 15% each year thereafter. The industry presently employs around 800 people, mostly in regional coastal communities where unemployment is particularly high. Contribution from expansion is expected to be in the order of $300 million per annum by 2005, with expected increases in employment estimated at 1000 full-time equivalents.[19]

2.17 The value of the aquaculture industry to Tasmania is set out in the Launceston Chamber of Commerce submission:

> Tasmania's aquaculture industry is seen as one of the saviours for the State – it has enjoyed rapid growth, popularity and has helped to position Tasmania as a producer of fine, 'clean green' produce in the eyes of the

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14 Industry Commission, *Australian Atlantic Salmon - Effects of Import Competition,* 20 December 1996, p 5

15 ABARE, *Salmon Imports into Australia,* November 1999, p 1

16 ibid

17 AQPM 1999/51, 19 July 1999, p 2

18 Tasmanian Government, Submission 42, p 3

19 ibid, p 14

> local, national and international markets. It is one of the products that has made the rest of the world take notice of our State's potential to produce high quality product.[20]

2.18 In Victoria, the 25 year old trout industry produces approximately 2,500 tonnes annually. It is currently valued at $20 million and is growing at a compounding rate of 10 per cent per annum. The industry directly employs about 400 people. Most of the product is sold domestically, although there is some export to Asia. The industry is largely based on the Goulburn River and its tributaries in north-eastern Victoria.[21]

2.19 The total expenditure on recreational fishing in Australia is approximately $2.9 billion of which an estimated 11 per cent or $243 million is spent on fishing for salmonids. Of the approximately $584 million expenditure on freshwater fish, 41 per cent is directed towards salmonids.[22]

> Because the salmonid recreational fishery in Australia is worth so much in terms of the whole freshwater fishery and is such a high proportion, [the introduction of disease] is a perceived direct threat to that definable sector of the recreational fishery.[23]

2.20 On a state basis, expenditure on salmonids, as a proportion of expenditure on freshwater fish, is estimated to be:

a) Approaching 100% in Tasmania .....$34 million

b) 40% in New South Wales.....$70 million

c) 50% in Victoria.....$121 million

d) 10% in Western Australia..... $11 million[24]

2.21 According to the Australian Fishing Tackle Association [AFTA], it is estimated that between 2,400 and 4,800 persons are employed as a direct result of recreational fishing for salmonids. In addition, AFTA claimed that the contribution to rural economies in or near major salmonid fishing regions is highly significant and that there is an interdependence between tourism and recreational fisheries in these areas which offer few alternative activities.[25] The Association concluded that:

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20 Launceston Chamber of Commerce, Submission 29, p 3

21 Mr Edward Meggitt, Victorian Trout Association, Evidence, RRAT, 11 November 1999, p 291

22 Mr Ray Walker, Recfish Australia, Evidence, RRAT, 24 September 1999, p 98

23 Dr Julian Pepperell, Australian Fishing Tackle Association, Evidence, RRAT, 24 September 1999, p 80

24 Australian Fishing Tackle Association, Submission 36, p 4

25 ibid

> If one or more diseases invaded the naturally occurring salmonid populations, or stopped supply of hatchery reared fingerlings, major economic impacts would result.[26]

2.22 The Tasmanian Government estimates the value to Tasmania of recreational fisheries to be approximately $70 million per annum. Their submission notes that fly-fishing is one of the fastest growing recreational pursuits in the world, with growth in tour guiding alone increasing from two operators in 1979 to 35 in 1999 with a further 16 set to become established, all of whom are owner operators of businesses. The submission also notes that growth in visiting anglers has stimulated growth in the industry through an increase in the number of angling guides, as well as expansion and refurbishment of accommodation, investment in boats and vehicles, the publication of a new international calibre fly fishing magazine and investment in new tour products. At least four new fishing lodges are being planned with an estimated capital investment of $10 million. Three other lodges are in the discussion stages.[27]

2.23 Tourism associated with Tasmania's wild trout fishing industry is valued at approximately $40 million a year.[28] In the niche market of eco-tourism, angling is valued at $6 million to the State.[29] The daily expenditure of a fishing visitor is between $550 and $750 compared with the average tourist expenditure of $130 per day. International visitors spend almost $1,000 per day. The average fishing trip lasts for 10 to 12 days. Visitors to the State inject about $4 million into Tasmania's economy per year.[30]

> Angling has enormous potential for growth in Tasmania and Tourism Tasmania, in conjunction with its Commonwealth counterparts, are currently undertaking and encouraging a specific marketing strategy to attract more international visitors on trout fishing alone. These efforts have successfully developed a marketing image and established Tasmania with the reputation as a world class-angling destination. This is consequently an extremely important Tasmanian and Australian asset with major growth potential that should be recognised and protected.[31]

Industry Commission Report - Australian Atlantic Salmon - Effects of Import Competition

2.24 The Industry Commission was requested in 1996 to undertake a study into the potential effects of fresh and frozen North American 'wild caught' Pacific salmon imports on the performance of the Australian farmed Atlantic salmon industry and the

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26 Australian Fishing Tackle Association, Submission 36, p 3

27 Tasmanian Government, Submission 42, p 3

28 The Liberal Party of Australia – Tasmania, Submission 26, p 2

29 Freshwater Anglers Council of Australia, Submission 8, p 3

30 Tasmanian Government, Submission 42, p 15

31 ibid, p 16

Australian economy. The terms of reference required the Commission to specifically examine:

a) The potential effects of imports on fresh and frozen salmon prices, as well as on investment, incomes and profits in the short and long term;

b) The potential effects of imports on Tasmanian farmed Atlantic salmon regions, in particular employment, regional economic growth and other social impacts;

c) Whether there are any impediments to adjustment of the farmed Atlantic salmon industry, including the ability of the industry to diversify aquaculture operations;

d) Export market opportunities and impediments faced by the Australian farmed Atlantic salmon industry; and

e) The scope of the Commonwealth, States and industry to improve the efficiency and international competitiveness of the Australian industry.[32]

2.25 The Commission was also required to take account of:

a) The influence that current quarantine policy and World Trade Organisation requirements would have on the level and impact of imports;

b) Commonwealth and State Government policies towards the industry; and

c) The views of stakeholders, including industry, input providers, processors, retailers and consumers.[33]

2.26 It is important to note that the Industry Commission's conclusions are premised on no diseases being introduced as a result of the importation of salmon. The key findings of the report, therefore, were that:

a) Fresh Australian Atlantic salmon received a price premium over other fresh salmon imports to Japan, mainly as a result of its high quality and largely chemical and disease free status;

b) On average, fresh Atlantic salmon on the domestic market currently received a small premium above prices received from exports to Japan. This premium was declining.

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32 Industry Commission, *Australian Atlantic Salmon - Effects of Import Competition,* 20 December 1996, p xi

33 ibid

c) The view of the Tasmanian Salmon Growers Association was that, disease apart, the effect of imports would be minimal, and that the industry would not seek assistance under an industry restructuring program;

d) Imports of fresh and frozen North American wild caught Pacific salmon would expand the range of products available to Australian consumers but the benefit was likely to be small. Provided no new salmon diseases entered Australia, no major effect on Australian Atlantic salmon producers was likely [in the absence of imported disease];

e) Any imports were likely to be mainly high value frozen Pacific salmon. Imports would compete more strongly with medium priced fin fish and meat products than with fresh Atlantic salmon. Scope existed for cost reductions in the future which should permit adjustment to any likely competitive pressure from imports.[34]

2.27 The Commission considered that:

> …the domestic demand for Australian Atlantic salmon is unlikely to be affected significantly by imports of fresh and frozen wild caught Pacific salmon from Canada and the United States. Imports of Pacific salmon are likely to be frozen, rather than fresh. Allowing for this quality difference, the landed cost of frozen Pacific salmon is unlikely to make it highly competitive with domestic salmon. Imports would compete more strongly with lower value fin fish and meat products than with fresh Atlantic salmon. Consequently, allowing imports is unlikely to have any major effect on profits, investment and employment in the Australian Atlantic salmon industry.[35]

The ABARE study - Salmon Imports into Australia

2.28 Following the revised quarantine arrangements for salmon, ABARE undertook a study to assess the impact such imports will have on the domestic market. Australian salmon producers are now selling an increased proportion of production within Australia and will face significantly altered market conditions as a result of the importation of salmon.

2.29 ABARE described the current domestic market as follows:

a) Prices on the world market have tended to fall as world supplies have grown rapidly, although Australia has consistently received a price premium compared with fresh salmon supplies from other countries;

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34 ibid, p xii

35 ibid, p xvi

b) The outlook for domestic demand for salmon is positive, however prices are likely to decline from their current historically high levels as increased domestic production enters the market in late 1999;

c) In the absence of disease the industry is cost competitive with imports.[36]

2.30 The report assessed the potential level of import penetration in the Australian market by comparing the relative free on board prices of salmon exports from Australia, Canada, the United States, New Zealand Chile and Norway to a common market, Japan. The analysis assumed that the imported and domestic products were close substitutes. Transport costs to Australia were added and the analysis assumed no disease incursion.

2.31 The report concluded:

a) New Zealand appeared to be the only country that could land *fresh* salmon in Australia at a competitive price. Canada has been unable to compete in the New Zealand fresh or frozen market since the relaxation of import controls several years earlier;

b) New Zealand could land whole king salmon in Sydney at around 8.5% below the Australian fob (free on board) export price to Japan. However, if the New Zealand product is not perceived as being homogeneous with the Australian product the price differential may not be sufficient for consumers to switch to the imported product;

c) If the product from New Zealand was perceived to be a close substitute, exports from New Zealand could amount to 2189 tonnes and 20% of the Australian market;

d) Supply by Australian producers would fall by approximately 730 tonnes or about 8% of domestic production.[37]

2.32 The report found that it was difficult to estimate the impact for exports of frozen salmon, for the following reasons:

a) There were concerns over the reliability of the available data for exports of frozen salmon;

b) Fresh and frozen salmon were not regarded as substitutes at the high end of the market;

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36 ABARE, *Salmon Imports into Australia - Potential Market Penetration*, November 1999, p 1

37 ibid, p 2

c) Frozen salmon may compete with other food products, however, the market for frozen salmon was significantly underdeveloped and would depend on the actions of the major retail chains;

d) Domestic smokehouses had indicated a willingness to import frozen product for further processing, although the extent to which Australian smokehouses could compete with overseas suppliers was unclear.[38]

2.33 The report ultimately concluded that:

a) If Australia's disease free status was lost, Australia would lose its competitive edge in the domestic market and the potential market penetration of imports would be greater; and

b) The loss of disease free status would jeopardise export markets and the price premium received through high quality product.[39]

Concerns in Relation to the Potential Consequences of the Decision

2.34 The concern expressed in many submissions relates to the potential gravity of the consequences should previously absent diseases enter Australia and the impossibility of eradication and difficulty of control once in the aquatic environment:

> In an aquatic ecosystem it is rare to have the luxury of such opportunities, [to have the opportunity to immediately notice the initial symptoms of disease, to determine the geographic area involved, to quarantine that area and take other measures necessary to limit the spread of the causal agent], for disease control and eradication. Under normal circumstances there may be a considerable delay before disease symptoms are noticed and by that time it is not possible to limit the area where the pathogen or parasite is active because of waterflows through the system or migration of the host animal or carrier species.[40]

2.35 The AQIS amendments to the import controls for salmonids has caused significant concern in certain sectors of the aquaculture and recreational fishing industries within Australia, due to fears that identified diseases could be transmitted within fish flesh, bones and offal. Major concerns in relation to the potential economic consequences of the decision include:

a) The potential to jeopardise thousands of jobs in the recreational fishing community throughout Australia, should disease be introduced; and

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38 ABARE, *Salmon Imports into Australia - Potential Market Penetration*, November 1999, p 3

39 ibid

40 Dr B Pratt, Submission 22, pp 3-4

b) The potentially disastrous effect on the Tasmanian economy through disease and the putting at risk of the competitive advantage of its 'clean green' image in the international arena.

2.36 There is widespread concern amongst many stakeholders about the perceived devastating economic consequences to industry and communities of salmonid diseases from overseas entering Australia. In particular, the Committee received evidence relating to the economic impacts of disease on:

a) The commercial aquaculture industry, especially in Tasmania and Victoria;

b) Recreational fishing and tourism; and

c) Australia's 'clean and green' image.

The Impact on Commercial Aquaculture in Tasmania

2.37 The impact on local industry was summed up as follows:

> Our company is a privately owned company. We live in the regional area that we work in. We employ 60 people in our business now, directly. Therefore, we are responsible for probably 120 mortgages and 240 breakfasts every morning. This document that AQIS has produced, and this decision, will rebound on our regional area… None of that has been taken into account within the AQIS document.[41]

2.38 The Tasmanian Government noted that, following the decision by the Commonwealth in 1996 to continue the ban on uncooked salmon, the Atlantic salmon industry in that state made investment decisions of approximately $50 million on the strength of the decision.[42] That investment is considered to be exposed.

2.39 The other major concern to Tasmania is the impact on employment in depressed areas of the state. The commercial aquaculture industry was generally located in areas of the state where unemployment is high. The industry provides one of the few economic opportunities in those areas and the Tasmanian government in particular is concerned that such limited economic opportunities should not be put at risk.[43]

2.40 However, the Tuna Boat Owners Association of Australia, while sympathising with the Tasmanian situation and recognising the importance of salmonids to the Tasmanian economy, argued that tuna farming is even more important to the South Australian economy. The submission stated that the Southern Bluefin Tuna industry exported $180 million in 1999, compared with the export value

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41 Mrs Frances Bender, Huon Aquaculture Co Pty Ltd, Evidence, RRAT, 5 October 1999, p 160

42 Tasmanian Government, Submission 42, p 3

43 ibid

of Tasmanian salmon production in 1997/98 of $17 million.[44] The submission argued that, because of the consistency requirement, if salmon import restrictions were increased, there would have to be a corresponding tightening of controls on imports of bait fish. This consequence was potentially disastrous for industries, such as tuna farming, dependent on bait fish:

> …the reality is that the economic options are:
>
> (1) either the very limited possibility of a disease incursion into Tasmania under the WTO position;
>
> (2) Or the certain cut by 95% of an industry in SA which is double the size of the Tasmanian industry.[45]

Susceptibility to disease and potential consequences

2.41 There is a strong view held by industry and some scientists that aquaculture farms are particularly vulnerable to disease outbreaks due to their intensive farming practices. In addition, the susceptibility of farmed fish to increased levels of stress, and subsequently to a lowering of their immune systems, due to the combination of handling and warmer water temperatures in summer, makes the likelihood of disease infestation greater.

> Australia is in a unique position in the salmon farming world in that it is free of all the major salmonid diseases. It is also unique in that we are farming naive populations of salmon on the edge of their tolerance limits in regard to temperature. I think this is a point that AQIS have largely overlooked.[46]

2.42 This view is supported by Professor Nigel Forteath who stated at public hearing:

> Our farmed salmon… become very stressed in summer months here, particularly when they have to be bathed. Unhealthy fish are really under some stress. That is when they become more susceptible to disease, when their immune system is suppressed because of these stresses. We have to run a farm management program here to reduce that stress…
>
> In still weather in the summer we have considerable problems managing our salmon and it is only the skill of the people on the farm that brings them through.[47]

2.43 Freshwater commercial aquaculture farms, such as those operating in Victoria and the Snowy Mountains area of NSW, believe that they are highly vulnerable to

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44 Tuna Boat Owners Association of Australia Inc, Submission 58, p 1

45 Tuna Boat Owners Association of Australia Inc, Supplementary Submission 58A, p 4

46 Mr Peter Bender, Huon Aquaculture Company Pty Ltd, Evidence, RRAT, 5 October 1999, p 155

47 Emeritus Professor Nigel Forteath, Evidence, RRAT, 5 October 1999, p 142

disease transmission because of possible contamination from the water supply. Sweet Water Pty Ltd in Victoria, for example, argued that its use of untreated water, which is gravity-fed from the Rubicon River, will jeopardise its operation if disease enters the river:

> Let me provide a very straightforward example of how disease may be introduced to our farm site ie, suppose a fisherman on the Rubicon River uses diseased salmon flesh as bait. If the bait dislodged from the hook and floated into our inlet water supply it would almost certainly be consumed by our brood fish. Once a viral disease has infected a single brood-fish the 3,000 to 5,000 eggs she produced would almost certainly carry the viral disease into the next generation. [48]
>
> As many viruses only result in high mortalities in young fish it is quite probable in the above example that no warning sign would occur prior to the onset of high mortalities in the progeny of these 3,000 to 5,000 eggs. As my business is major supplier of fertilised ova and salmon 'fry' to other farms in Victoria and South Australia the industries in these two states could be decimated within a very short period of time.[49]

2.44 The Victorian Trout Association claimed that it is the proximity of freshwater trout farms to thriving tourist destinations, such as Lake Eildon, which will inevitably lead to an outbreak of salmonid disease on these farms. The use of imported uncooked salmon as bait for recreational fishing by visiting tourists is just one example of how transmission could occur.[50]

2.45 In Tasmania, aquaculture farms and hatcheries may not only be susceptible to disease but may in turn help to transmit disease to the wild:

> It is possible that hatcheries may provide a means by which disease can spread between fresh and saltwater environments… The movement of escapees, transfer from hatcheries to farms, ingress of wild fish and a common water supply are all means by which disease may be spread amongst communities.[51]

2.46 Industry claims that the ultimate impact of disease on aquaculture farms and hatcheries will be the devastation of those enterprises, due to the likelihood that once an outbreak occurs, it will be irreversible. The Huon Aquaculture Company, for example, explained to the Committee how an outbreak of disease would impact on its farm:

> [Infectious salmon anaemia] would kill many of the fish and it would make so many of the procedures we use from day to day to harvest our fish, feed

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48 Sweet Water Pty Ltd, Submission 4, p 2

49 ibid

50 Mr Edward Meggitt, Victorian Trout Association, Evidence, RRAT, 11 November 1999, pp 291-292

51 Tasmanian Government, Submission 42, p 14

> them and grow them – very basic things – so difficult that we would not be able to do them. We would lose so many fish that we would not be economically viable and the company would quite literally collapse within weeks – months at most.[52]

2.47 Even the threat of disease may have a detrimental impact on the economic viability of the commercial aquaculture industry. In its submission to the Committee, the Tasmanian Government advised that the Tasmanian salmon industry had made major investment decisions on the strength of the decision in December 1996 to maintain the 1975 ban on uncooked salmon imports. To date, following that decision, investment in the order of $50 million has been made or is committed. According to the Tasmanian Government, that investment is now exposed to increased risk from the July 1999 decision by the Commonwealth.[53]

2.48 Industry in Tasmania also believes that the investment environment for salmonid aquaculture may change due to the AQIS decision:

> Our investment decisions earlier this year had been based on a risk being established here as being very low because of the current import protocols. If those import protocols are changed, the investment risk is increased. I can say that as a person that is very sensitive to those issues, with my money on the line, it really makes you wonder whether you should be investing in an industry now which has a much higher risk profile or another that has not…[54]

> From my direct contact with our bankers and people, they are very aware of these issues and it dominates a good part of the discussions we have with them on a regular basis. We are constantly updating them on the position. They are certainly concerned about it and aware of it and they are also aware of the financial impacts of what has happened in Scotland and Canada of recent times.[55]

The Impact on Recreational Fishing and Tourism

2.49 The recreational fishing industry is similarly concerned about the impact of the introduction of disease on the viability and value of the industry. The industry regards the threat of disease as potentially devastating on the recreational fishing sector, through what is regarded as an inevitable eventual outcome of the decision to relax import controls:

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52 Mr Innes Weir, Huon Aquaculture Company Pty Ltd, Evidence, RRAT, 5 October 1999, p 161

53 Tasmanian Government, Submission 42, p 3

54 Mr Richard Doedens, Nortas Pty Ltd, Evidence, RRAT, 5 October 1999, p 203

55 Mr Steven John, Nortas Pty Ltd, Evidence, RRAT, 5 October 1999, p 203

> Over time the introduction of new diseases is almost certain. It is incredible that a government should deliberately place recreational and sport fishing in such a situation.[56]

2.50 According to the Freshwater Anglers Council of Australia:

> Tasmania can rightly lay claim to having the last true wild fishery in existence. Anglers from all over the world come to fish our rivers, lakes and tarns. The Western Lakes, situated in the World Heritage Area of Tasmania's Central Plateau, are considered the ultimate in sight fishing experiences. Last season 31,176 licences were sold, 25,373 of these were held by Tasmanians, highlighting the high participation of freshwater fishing.[57]

2.51 In their submission to the Committee, the Tasmanian Government emphasised the economic consequences of the demise of recreational fishing in that State due to disease, especially in regional areas:

> Angling activity occurs on thousands of lakes and streams throughout the State and consequently has a positive impact on those areas where other forms of tourism are difficult to attract and where other economic opportunities are limited. This leads to decentralisation of development and job creation outside the major urban centres. Bronte Park and Miena derive a significant proportion of their revenue from recreational fishers, and would be economically devastated if disease were to reduce fishing activity.[58]

2.52 This view was also shared by industry:

> The outlook for country and regional Tasmania would be catastrophic, resulting in high unemployment and growth retardation. Tackle outlets readily acknowledge that freshwater angling products make up a minimum of 65% of all sales. Small business would be lost, large businesses would see a major reduction in sales and as such would have to lay off staff, thus increasing unemployment significantly…
>
> Lodges, situated throughout Tasmania and especially in our highlands, are assets to the state and worth millions of dollars. They employ 150-200 people directly, depending on the time of the season. Together with private fisheries, 80% of all clients partake in angling of one form or another.[59]

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56 Recfish Australia, Submission 25, p 3

57 Freshwater Anglers Council of Australia, Submission 8, p 3

58 Tasmanian Government, Submission 42, p 3

59 Freshwater Anglers Council of Australia, Submission 8, p 3

Australia's and Tasmania's 'clean green' Image

2.53 AFFA acknowledged at public hearing that Australia's conservative quarantine arrangements were appropriately conservative in order to protect its 'unique status in terms of pest and disease incidence'. Dr Hearn stated:

> …the clean green image of Australia is a very important marketing point. I believe it most certainly contributes to our export performance not only in the region but also globally.[60]

2.54 A number of stakeholders argued that Australia was in danger of losing one of its major competitive advantages – its 'clean green' image – if salmonid diseases were allowed to enter Australia through uncooked salmon imports. The introduction of disease would impact severely on the ability of local companies to export Australian salmon to overseas markets, especially to markets such as Japan, where a premium of around 17% is obtained for the product produced in Tasmania, largely as a result of the disease free status, environmental factors and the antibiotic free nature of the product:

> Certainly in the Japanese market… our product receives something like a 20-odd per cent premium over fish from anywhere else in the world. That is largely due to its quality, and the quality is largely due to its freedom from disease.[61]

2.55 Several witnesses to the inquiry also suggested to the Committee that overseas anglers were visiting Australia in increasing numbers because of the favourable nature of its fishery, including its disease free status. Typical of the comment to the Committee was Mr Ken Orr's statement:

> The comments extend to saying, 'What you have here is fantastic. Make sure you protect it. Don't let it go the way ours has gone.' And they cover a wide range of comments about their home fishery—it may be overfishing, it may be disease problems and those sort of things; it goes across the board. Certainly disease is a problem to them. They come out here and they know they are fishing in pristine waters, they know they are fishing in a pristine environment. Our main thrust is to protect that. As I said before, we have the unique situation in Australia of being the only nation in the world which has a disease free fishery. It seems to me a crime to give that away, to let that be taken from us.[62]

2.56 Sweet Water Pty Ltd, a company specialising in the freshwater farming of Atlantic salmon primarily for their roe, advised:

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60 Dr Simon Hearn, Department of Agriculture, Fisheries and Forestry, Evidence, RRAT, 24 September 1999, p 8

61 Mr Peter Bender, Huon Aquaculture Company Pty Ltd, Evidence, RRAT, 5 October 1999, p 169

62 Mr Ken Orr, The Tasmanian Professional Trout Guides Association, Evidence, RRAT, 5 October 1999, p 120

> Key to our success in both our salmon 'caviar' and our fresh fish produce has been our primary focus on minimising the usage of chemicals, antibiotics and other non-natural ingredients in all phases of our production process. We believe that many of the natural processes we employ to achieve this aim are unique within Australia…[63]

2.57 According to both the Tasmanian Government and the Tasmanian Opposition, the preservation of that State's 'clean green' image in relation to the salmon industry is a critical priority:

> Tasmania's 'clean green' image is our competitive advantage. If this image were tarnished, access to lucrative markets and high sale prices would be denied. Tasmania's environmental status has opened many doors around the world and if we can retain this image, it will continue to do so.[64]

> Tasmania has led the nation in protection of its environment. It has built an image around its clean, green environment and Brand Tasmania – as it is known – is entirely dependent on that image remaining intact. Any action that will cause new disease to infect our products would be significantly damaging to the State's food producers, its economy and its job market. We must keep protecting our environment with the type of regimes and practices that have helped build our clean, green and clever reputation.[65]

2.58 The concerns expressed by the two major political parties outlined above were reiterated in the many submissions received from or on behalf of Tasmanian businesses. The submission from the Tasmanian Government stated:

> Tasmania enjoys some of the cleanest strains of salmonids in the world. Local fish stocks, both farmed and wild are virtually disease-free, and the State has based its fishing industries around this claim. Tasmania's clean, green status has opened many doors around the world.
>
> Canadian salmon contains 27 diseases not found in Australia. If disease were to enter local fish populations, growth rates, quality and marketability may be affected.[66]

Other Issues

2.59 The Committee also received significant comment on the impact of disease incursions on:

a) Native fish populations; and

b) The environment.

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63 Sweet Water Pty Ltd, Submission 4, p 1

64 Tasmanian Government, Submission 42, p 16

65 The Liberal Party of Australia – Tasmania, Submission 26, p 4

66 Tasmanian Government, Submission 42, p 11

The Impact on Native Fish Populations

2.60 The Tasmanian Government, along with a number of other organisations, particularly the recreational fishing bodies, expressed concern about the impact on native fish populations should diseases be introduced:

> Native species in Tasmania [galaxids] are closely related to salmonids. There are 25 native fish species in Tasmania, 12 of which are endemic. Five of the endemic and 2 of the native species have been defined as endangered, vulnerable or rare. If disease were to develop, Tasmania could lose these species and others. Tasmanian fish have historically avoided serious diseases, and therefore have no resistance to them.
>
> Tasmanian coastal and inland fisheries are closely linked by species that migrate between fresh and salt water. If disease were to develop in a coastal area, fish such as whitebait or sea-run trout could transport the disease inland or vice versa. Tasmanian Whitebait run up most of our estuaries to their fresh water spawning grounds. Sea-run trout follow them up and would provide an ideal host for transferring disease to the unprotected wild fishery.
>
> Whilst commercially farmed fish can be chemically treated if disease strikes, this is simply not feasible for wild fish. The wide ranging area over which wild species are found rules out systematic treatment, as does the prohibitive cost. If disease were to enter the aquatic environment, it may never be completely removed.[67]

2.61 The Northern Tasmanian Fisheries Association Inc pointed out that Tasmania is the last bastion of true wild brown trout in the world, and as such, the Inland Fisheries Commission exports the ova of these disease free trout throughout the world[68]. The Tasmanian submission stressed the importance of the purity of the strain of brown trout, currently present in Tasmanian waters:

> Tasmania now boasts some of the purest strains of brown trout anywhere on earth. Australia has based its recreational fishing industry around having the only disease free recreational fishery in the world. Tasmania may be called upon in the future to provide clean populations to other nations where disease has withered or destroyed local stock.[69]

Environmental Concerns

2.62 Environmental concerns are grave because of the impossibility of eradication once a disease enters the aquatic environment. Submitters generally recognised the advantage to Australia of the WTO arrangements and continued commitment to free trade principles. However, they argue that this should not be at the expense of denigrating the Australian environment. The IFA argues that it is not against the

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67 Tasmanian Government, Submission 42, p 12

68 Northern Tasmanian Fisheries Association Inc, Submission 40, p 1

69 Tasmanian Government, Submission 42, p 15

importation of salmon per se but it is against the importation of uncooked salmon arguing that prevention in this situation is better than cure, and salmon imports should be restricted to cooked salmon[70].

The Introduction of Disease

2.63 There have been a number of incursions of animal diseases into Australia. These have been eliminated primarily through either quarantine procedures, destruction of actual or potentially infected individuals and movement controls to limit spread. Such techniques are not possible to eliminate disease incursions in an aquatic environment. One submission from Dr T St George, an ex CSIRO scientist, stated:

> All foreign diseases that have been impossible to eliminate remain a continuing financial cost on the relevant industry or government…I am not aware of any virus disease of cultivated fish that has been eliminated.[71]

2.64 Recfish Australia criticised the relaxation of import controls for salmonids, stating:

> This new approach is incompatible with the precautionary principle that in the absence of good information, decisions that cause irreversible changes should be avoided. This new system depends on knowing whether a specific disease is present or absent in Australia and on judging whether the introduction of the disease will or will not significantly reduce Australia's appropriate level of protection. It seems that [a] country somewhere has to have disease problem before Australia can take action to protect its fish.[72]

The Aquarium Industry

2.65 A number of submissions expressed concerns about maintaining import controls in opposition to WTO findings. The aquarium industry was particularly concerned that, as a result of the consistency requirement, any further tightening of import controls on salmon from those announced on 19 July 1999 would impact severely and adversely on that industry.

2.66 The Pet Industry Joint Advisory Council [PIJAC] describes the significance of the industry:

> The aquarium industry is present the entire length and breadth of Australia. More and more households are now keeping fish as pets. The latest estimates indicate that 16% of households have fish as pets. That's over 3 million Australians. This figure doesn't include the many households that keep multiple tanks of aquarium fish. There are a large number of people

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70 Institute of Freshwater Anglers (NSW) Inc, Submission 30, Attachment 2

71 Dr T George, Submission 1, p 1

72 Recfish Australia, Submission 25, p 3

> employed all over Australia in the aquarium stores employing approximately 5000 staff.[73]

2.67 PIJAC indicated that the industry was still awaiting a 'sound scientific reason for the imposition of quarantine on marine ornamental fish' and stated:

> The Australian aquarium industry is too important to be put at risk by over regulation not of our own cause and as a result of a separate industry.[74]

2.68 The Council expressed concern about the impact of increased controls on imports of ornamental finfish:

> The point I make to you is that should the Tasmanian salmon industry have its way and the decision by AQIS is changed, there is a possibility that AQIS will be forced by the World Trade Organisation to increase the regulations on our aquarium fish imports to keep our import conditions consistent. This would force even more Australians out of business. The Australian aquarium fish industry does not want or need any more regulations - especially due to a reason outside our control. Any more regulations on our industry will lead to us being regulated out of existence.[75]

The Rock Lobster and Tuna Industries

2.69 The 19 July 1999 announcement had significant implications for those industries relying on imported bait - the rock lobster, tuna longlining and tuna farm operations. One submission, from the Tuna Boat Owners Association of Australia, set out the significance of that industry:

> The Southern Bluefin Tuna (SBT) industry exported $180 million in 1999 (Source: ABS)… SBT farming generates over 2,500 jobs throughout Australia and is fundamental to the whole Eyre Peninsula economy. The SBT industry farms over 95% of its catch. The farms depend on imported feed for over 90% of its feed requirements.[76]

2.70 The submission expressed support for the IRA process followed by AQIS:

> Our consistent documented view, well before the IRA outcome was known, has always been that the accelerated IRA was a responsible and rational process. It was rigorous and highly consultative, with adequate time to comment on issues as they arose.
>
> Again, we have no expertise on salmonids. What we can say about the non-salmonids used for bait is, that the AQIS process was the most comprehensive survey possible. This is our judgement after researching

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73 Pet Industry Joint Advisory Council of Australia Ltd, Supplementary Submission 57, p 2

74 ibid

75 Pet Industry Joint Advisory Council of Australia Ltd, Submission 34, p 1

76 Tuna Boat Owners Association of Australia Inc, Submission 58, pp 1-2

> IRA's from other countries, and matching the IRA against the advice of experts available to us.
>
> We say this despite the fact that the outcome of the IRA is to leave the tuna industry in a very exposed situation, confronted by the loss of some key import species and sources and a new system of rigid import permits which can be cancelled at any time. Please note also that the international agreements under scrutiny – the OIE and SPS have a marked bias against imports. As a result the IRA by AQIS is not allowed to consider the economic impact of any import restrictions.[77]

2.71 The Tuna Boat Owners' Association argued that no association between the import of bait and any disease event has ever been shown.[78] The submission further emphasised the importance of a continued supply of imported bait for these industries, arguing that there were no apparent alternatives at this stage.

2.72 The WA Fishing Industry Council [WAFIC] described the rock lobster industry as the largest individual fishery by value in Australia with annual exports in the order of A$300 million. Their submission stated:

> Imported baits have been extensively used in the fishery for at least the past twenty years with an estimated total import tonnage of 140,000 metric tonnes at a cost of A$100 million over that period. It is important to note that in the same twenty year period approximately 210,000 tonnes of western rock lobster have been caught with an export value of A$5,000 million.[79]

2.73 The WAFIC submission, in support of the import protocols which ensured the continued supply of imported bait, noted that 'Australia cannot supply the tonnages of bait required for the fishery hence there is a major reliance on continued access to imported bait'.[80]

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77 ibid

78 ibid, p 4

79 WAFIC, Submission 60, p 1

80 ibid