



## INVESTIGATION REPORT

Ref: AS 12853

To: s 9(2)(a) Chief Compliance Investigator, South

Cc: s 9(2)(a) Compliance Investigations Manager Central/South

From: s 9(2)(a) Senior Investigator

Date: 16 March 2018

Subject: Determine whether the presence of *Bonamia Ostreae* in Big Glory Bay, Stewart Island, can be attributed to non-compliance by any person or persons.

## INCIDENT SUMMARY

### 1.0 Background \_ *Bonamia Ostreae* (*B.ostreae*)

- 1.1. *Bonamia Ostreae* is a protozoan parasite that has caused mass oyster deaths in European flat oyster. It was found for the first time in New Zealand in January 2015 following the testing of samples from two Marlborough Sound marine farms<sup>1</sup> and a s 9(2)(b)(ii), s 9(2)(ba)(i) .<sup>2</sup>
- 1.2. In June 2015 a Controlled Area Notice (CAN) pursuant to section 131(2) of the Biosecurity Act was issued in an attempt to restrict the spread of *B.ostreae*.
- 1.3. The CAN created two zones, a containment zone which restricted the movement of bivalves<sup>3</sup> (including spat) etc. out of the Marlborough/Nelson region and a protection zone which restricted the movement of the same into Southland/Stewart Island and the Chatham Islands.
- 1.4. Following the discovery of *B.ostreae* MPI undertook a series of active sampling and passive surveillance of marine farms and wild populations of flat oysters throughout New Zealand.

s 9(2)(b)(ii), s 9(2)(ba)(i), s 9(2)(a)

<sup>3</sup> Live and dead including the spat of Flat Oyster (*Ostrea chilensis*), Pacific Oyster (*Crassostrea gigas*), Mussels (*Perna canaliculus*) and Geoducks (*Panopea zealandica*).

- 1.5. In May 2017 *B.ostreae* was positively identified on s 9(2)(b)(ii), s 9(2)(ba)(i)  
as well as an adjoining marine farm s 9(2)(b)(ii), s 9(2)(ba)(i).
- 1.6. On 14 June 2017 a further CAN was issued which amended and replaced the earlier CAN from 2015. The new CAN placed further restrictions on the movement of bivalves in and out of Stewart Island.

## 2. Allegations Of Offending

- 2.1. Soon after the public release of the Stewart Island *B.ostreae* discovery MPI received information regarding the alleged illegal movement of oyster spat. This information centred on allegations and rumours that oyster spat originating from a Marlborough oyster farm had been delivered to a Stewart Island farm in contravention of the CAN.
- 2.2. Further unsubstantiated information received by MPI over the following days included claims of large unreported oyster mortalities, illegal movements of oyster spat from Marlborough and permitted transfers happening of oyster spat into Stewart Island.
- 2.3. As a result of these allegations on 12 June 2017 an inquiry was initiated to establish whether the *B.ostreae* located in Stewart Island could be attributed to non-compliant aquaculture activity.

## EVIDENCE

3. The inquiry focused on gathering all relevant information and evidence pertaining to the allegations and rumours which were essentially alleging deliberate breaches of the CAN<sup>4</sup> and/or other Biosecurity offences.<sup>5</sup>
- 3.1. The inquiry also focussed on whether there were any breaches of the regulations<sup>6</sup> pertaining to the aquaculture operations that may have contributed to the *B.ostreae* outbreak.
- 3.2. This included DNA testing of juvenile spat located at s 9(2)(b)(ii), s 9(2)(ba)(i)  
Stewart Island, the results of which confirmed that these oysters derived from Stewart Island stock.
- 3.3. As the inquiry progressed, it was clear that the nature of the allegations being made warranted the inquiry being upgraded to a formal investigation.
- 3.4. My inquiries have led me to conclude that there is no evidence to support the premise that the introduction of the *B.ostreae* to Stewart Island can be attributed to any non-compliance aquaculture activity.
- 3.5. My inquiries also included examining regulatory breaches of the relevant fishing regulations in regards to the record keeping and licencing requirements of the marine and land based

<sup>4</sup> S134(1)(b) Biosecurity Act 1993. Enforcement of area controls.

<sup>5</sup> S53 Biosecurity Act 1993. Duties of owners of organisms. R31, Freshwater Fish Farming Regulations 1983 Diseased fish

<sup>6</sup> Fisheries (Recordkeeping) Regulations 1990, Freshwater Fish Farming Regulations 1983, Animal Products (REG Control Scheme-Bivalve Molluscan Shellfish) Regs 2006, Fisheries (Registers) Regulations 2001

farms regarding their obligations to report and document fish and spat movement. I have concluded that there is insufficient evidence to support a prosecution and insufficient evidence to find that any such breaches contributed to the *B.ostreae* outbreak.

#### **PUBLIC INTEREST**

Not applicable in this instance.

#### **EVIDENTIAL SUFFICIENCY**

4. I have concluded that none of the allegations have reached the evidential threshold support a prosecution.

#### **FURTHER ACTION**

5. The file is now forwarded to you for your review and progression.

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**SIGNED:**

s 9(2)(a)

Senior Investigator  
Christchurch

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#### **APPENDIX**



## **BACKGROUND**

The *Bonamia Ostreae* inquiry began in June 2017. The aim of this inquiry was to discover whether the presence of *B.ostreae* located in Big Glory Bay, Stewart Island, could be attributed to non-compliant aquaculture activity by any person or persons. The inquiry began as a result of a number of allegations and rumours that had surfaced at that time that the presence of the parasite was a direct result of illegal activity. Due to the specific nature of some of the allegations the inquiry was quickly upgraded to an investigation. It is important to note that the investigation aim was not to specifically identify how *B.ostreae* arrived in Stewart Island but whether any illegal activity could be associated with its arrival.

The investigation began with the planning and intelligence gathering phase which involved liaising with all relevant entities and collation of the all relevant data.

We were able to rely on data that had been captured by the MPI response team and in particular the work done by the incursion investigators and aquaculture group in response to the original Marlborough *B.ostreae* outbreak in 2015.

As a result we were able to eliminate some background work and concentrate on the relevant identified parties. This included the two identified Marlborough sources of the *B.ostreae* (s 9(2)(b)(ii), s 9(2)(ba)(i)) and the two identified marine farms where the *B.ostreae* was discovered in Stewart Island (s 9(2)(a), s 9(2)(ba)(i), s 9(2)(b)(ii)).

It was probably not surprising then that the subjects of the most serious allegations revolved around these entities as they were perceived as the logical likely source of the incursion by many of the people (involved in the marine farming industry) that we spoke with.

## **MPI**

MPI is the government's principle advisor on aquaculture issues. In 2010 the Government established the Aquaculture Unit, an MPI business unit to implement this role. A substantial part of the units work is delivering the Government's Aquaculture Strategy and Five-year action plan designed as a whole of government pathway to promote growth in the aquaculture sector.

Part of the new plan is a proposal to establish a national environmental standard (NES) for marine aquaculture under the Resource Management Act 1991 (RMA) which will set national rules to replace the current regional council rules. Additionally there are proposed changes to the re-consenting process for marine farms and a requirement for all marine farms to have a biosecurity management plan.

At the time of writing this report there has been no conclusive evidence found as to how *B.ostreae* came to be established in Big Glory Bay, Stewart Island. According to (s 9(2)(a)) Principal Adviser, Bacteriology & Aquatic Animal the current theories suggest that in keeping with the long history of *B.ostreae* spread throughout Europe the likely causes are through the illicit movement of shellfish or bio fouling from infected vessels. It is unlikely that the *B.ostreae* arrived naturally through the natural flow of ocean currents.

## **LEGISLATION**

Legislation around aquaculture is complex with no one specific Act encompassing the whole process. The Resource Management Act is the primary legislation which governs the establishment of marine farms. Any marine farmer must first obtain resource consent when applying to set up a marine farm.

These records are kept by each of the relevant Regional Councils. Additionally each farmer must also register<sup>7</sup> as a marine farmer as per s.186K of the Fisheries Act 1996.

Land based and marine farms are covered by the Fisheries Act (Freshwater Fish Farm Regulations) and the RMA whilst Marine Farming is also covered by the Fisheries Act (Recordkeeping) Regs.

For land based farms it is the owner of the site (not the farmer) who is on record under the RMA whilst the register of marine farms records the people who hold the consents (which may not necessarily be the farmer).

In regards to record keeping, the Fisheries (Recordkeeping) Regulations requires all registered marine fish farmers to keep records as per 26A in relation to sales and purchasing of stock (including spat). This does not include stock or spat movement records unless (as per 26B) the fish is a "high risk" species (paua and rock lobster).

For land based fish farmers Regulation 24 and 25 of the Freshwater Fish Farming Regulations relate to the requirement to keep records. The land based farmer's licence and general authorisations contain specific reporting clauses and further conditions that may be required to be fulfilled. E.g. source of spat.

In the case of the licences issued to s 9(2)(b)(ii), s 9(2)(ba)(i) one of the many conditions included, restricting the obtaining of stock (including spat) to authorised Licenced Fish Receivers as well as a requirement to seek authorisation (from MPI) to move stock from the fish farm. This authorisation is valid until the Licensee no longer operates or is revoked.

Of special note the authorisation sent to both these companies from MPI on the above dates included a clause which stated:

*The Licensee shall keep records of Bluff oysters removed from the Fish Farm in accordance with schedule D of the Licence. For the purpose of this authorisation, the quantities of Bluff oyster removed from the fish farm shall be reported as numbers of oysters where the Bluff oysters are over 10mm.*

The clause should have included

*...where the Bluff oysters are over 10mm and reported as either weight or number where the Bluff oysters are under 10mm.*

This has given the clause an unintended interpretation that oysters under 10mm need not be recorded where this is not the case. So while a Licenced fish farmer is required to keep records<sup>8</sup> they need not do so if this is a specified condition of his licence, 24(2)(a) *Unless stated otherwise as a condition of a fish farm licence.*

In probably all cases when oyster spat is removed from these two land based hatcheries to the marine farm they are well under 10mm and in most cases they would be no bigger than the size of a grain of sand.

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<sup>7</sup> The register is managed by FishServe on behalf of MPI

<sup>8</sup> R 24(1) & 25 (1)(c) Freshwater Fish Farming Regulations 1983



This has been brought to the attention of the aquaculture group and they will make the appropriate changes. This error has only appeared in the recent authorisations and limited to these two fish farms.

There is also a requirement to report monthly any spat that has been moved. At this point of time no reports have been received from <sup>s 9(2)(b)(ii), s 9(2)(ba)(i)</sup> whilst <sup>s 9(2)(b)(ii), s 9(2)(ba)(i)</sup> have furnished reports although there would appear to be some gaps in the monthly reporting.

## ANIMAL PRODUCTS ACT

Another piece of legislation that encompasses the oyster aquaculture industry is the Animal Products Act and in particular the (Regulated Control Scheme-Bivalve Molluscan Shellfish) Regulations 2006. The main purpose of these regulations are to impose a regulated control molluscan shellfish (BMS) intended for human consumption.

Whilst these regulations put into effect obligations and duties regarding land based facilities and harvest operators around permitting, harvesting and the movement of product there are no offences in these regulations that would satisfy the purpose of this investigation.

## BIOSECURITY LEGISLATION

Part 3 of the Freshwater Fishing Regulations references disease control in fish farms with the most applicable regulation in this part being regulation 31.

- 31 *Diseased fish not to be transferred*  
*No person shall-*
- (a) *transfer any diseased fish from any farm to any other fish farm; or*
  - (b) *release into any waters any diseased fish kept on any farm*

This provision transfers the onus of proof on the offender and carries a maximum \$10,000 fine.

The Biosecurity Act has two sections that are applicable in this matter. The first relates to the Controlled Area Notice (CAN) issued in June 2015 pursuant to section 131(2) of the Biosecurity Act. Section 134 (1) (b) & 154N(8) makes it an offence to move an organism in contravention of this notice, a strict liability matter that carries a 3 month imprisonment term and/or a \$5000 fine.

The other section that could be applicable is section 53 regarding the duties of owners of organism which states:

- 53 *Duties of owners of organisms*
- (1) *Subject to subsection (2), the owner or person in charge of an organism which that person knows or suspects constitutes, contains or harbours a pest or unwanted organism must not*
    - ..... (c) *propagate, breed or multiply the pest or unwanted organism*

Section 53 is not a strict liability matter and carries a 5 year and or \$100,000 penalty.

## INFORMATION RECEIVED and ACTIONS TAKEN

### ALLEGATION A

DATE: 15/06/2017

INFORMATION: <sup>s 9(2)(a), s 9(2)(b)(ii)</sup> allegedly farming oysters outside of permitted area – Big Glory Bay, <sup>s 9(2)(b)(ii)</sup>, Stewart Island.

SOURCE: Confidential rated F6

LEGISLATION REFERRED TO: s.134 Biosecurity Act 1993 (moving an organism in contravention of a CAN)

ACTION: Nil action, for follow up by local fishery staff. This allegation does not relate to the *B.ostreae* incursion in Big Glory Bay, rather farming outside the confines of the permitted area within Big Glory Bay.

## ALLEGATION B

DATE: 02/06/2017

INFORMATION: [redacted] s 9(2)(a), s 9(2)(b)(ii), s 9(2)(ba)(i) allegedly sold oysters [redacted] s 9(2)(a) in Bluff which had been sourced from [redacted] s 9(2)(a) Stewart Island in contravention of the CAN.

SOURCE: Confidential rated F6

LEGISLATION REFERRED TO: s.134 Biosecurity Act 1993 (moving an organism in contravention of a CAN)

ACTION: Nil action, investigated by Invercargill Fishery Officers. This allegation does not relate to how *B.ostreae* infected Big Glory Bay

## ALLEGATION C

DATE: N/A

INFORMATION: Contained in an MPI prepared document "Surveillance plan for Bonamia ostreae" dated 26 Feb 2015 written by [redacted] s 9(2)(a) a Marine Incursion Investigator she makes reference to oysters being transferred from [redacted] s 9(2)(b)(ii), s 9(2)(ba)(i) Marlborough [redacted] s 9(2)(b)(ii), s 9(2)(ba)(i) to an oyster farm in Big Glory Bay, Stewart Island.

*"Big Glory Bay, a flat oyster farming area, received 500 oysters from [redacted] s 9(2)(b)(ii), s 9(2)(ba)(i) farmed in the Marlborough Sounds."*

SOURCE: MPI

LEGISLATION REFERRED TO: s.134 Biosecurity Act 1993 (moving an organism in contravention of a CAN)

ACTION:

1. Contacted [redacted] s 9(2)(a) to confirm source of information. [redacted] s 9(2)(a) was unable to confirm where this information had originated from.
2. Contacted [redacted] s 9(2)(b)(ii), s 9(2)(ba)(i) (03/08/2017 [redacted] s 9(2)(a)) and retrieved stock transfer records, no record of any oysters being sent [redacted] s 9(2)(b)(ii), s 9(2)(ba)(i) to Stewart Island.
3. Checked MPI Land based fish farm returns, no transfer records from [redacted] s 9(2)(b)(ii), s 9(2)(ba)(i) to Stewart Island.
4. Contacted [redacted] s 9(2)(a), s 9(2)(b)(ii) (Port Underwood [redacted] s 9(2)(b)(ii), s 9(2)(ba)(i)) and had a hatchery there up until April 2015 when it closed due to the *B.ostreae* outbreak. [redacted] s 9(2)(a)



stated that they have never sent any oysters or spat to Stewart Island however they had received approximately 2000 oysters in 500 lots from [redacted] (Big Glory Bay) prior to this time. [redacted] suggested that these are likely to be the oysters referred to in the report.

5. Contact [redacted] re the above information. [redacted] made inquiries with her colleague<sup>9</sup> and reached the conclusion that the 500 oysters referred to are likely to have been from the above transfer and that it had been recorded in error.

*"I can't find any reference in the documentation or emails to oysters being moved from the [redacted] or a Marlborough farm to BGB. But I did find the attached email which refers to 500 Perna canaliculus transferred from Big Glory Bay to [redacted], but no movements to Stewart Island. Maybe that got stuck in your head-and mine."*

CONCLUSION: No offences detected. The report was written in error and that no oysters had been transferred to Big Glory Bay from [redacted] Marlborough.

## ALLEGATION D

DATE: 02/02/2015

INFORMATION: MPI Incursion Offence Report by Investigator [redacted] inferred that the first detection of *B.ostreae* was from stock from [redacted] in May and August 2014 (both Marlborough) that was then held at [redacted]. Researchers from France had visited [redacted] therefore it was possible that there may have been some contamination of *B.ostreae* DNA from these researchers.

SOURCE: MPI

ACTION: Whilst this information falls out of the investigation scope, the following is of relevance.

1. 11/02/2015 samples of oysters were taken from [redacted] were both found to be positive for *B.ostreae* confirming that the parasite was almost certain to have been present in the oysters before arriving [redacted] in 2014.

CONCLUSION: No offences detected and there is no evidence to suggest such occurred. *B.ostreae* was already present in the Marlborough Sounds prior to the discovery of the infected oysters [redacted] and biosecurity measures in place [redacted] would also make it very unlikely that the *B.ostreae* originated here.

<sup>9</sup> [redacted] Incursion Investigator MPI



## ALLEGATION E

DATE: 7 June 2017

### INFORMATION:

s 9(2)(a) contacted s 9(2)(a) Fisheries scientist to say that he had staff who state that s 9(2)(a), s 9(2)(a) transferred oyster spat from Marlborough to Stewart Island 2 to 3 months previously in contravention of the CAN.

8 June 2017 s 9(2)(a) interviewed by MPI Investigator states:

1. 2-3 months ago, s 9(2)(a) saw a man they know called s 9(2)(a) with a small bucket containing one-two inches (2.5-5cm) worth of oyster spat on the Foveaux ferry travelling from Bluff to Stewart Island.
2. s 9(2)(a) allegedly told them it was from Marlborough.
3. s 9(2)(a) works for s 9(2)(a) who is in a partnership with s 9(2)(b)(ii).

LEGISLATION REFERRED TO: s.134 Biosecurity Act 1993 (moving an organism in contravention of a CAN)

### ACTION:

Locate and interview: s 9(2)(a)

1. s 9(2)(a) confirmed that he and s 9(2)(a) met and talked with s 9(2)(a) on the Foveaux ferry in February 2017 and that s 9(2)(a) had a small bucket of oyster spat.
2. He did not recall s 9(2)(a) saying that they were from Marlborough.

Locate and interview: s 9(2)(a) 07/07/2017

1. s 9(2)(a) declined to make a written statement but agreed to verbal interview.
2. Agreed with above facts however said that s 9(2)(a) did not say where the oysters were from and that there was no mention of them coming from Marlborough.

Locate and interview: s 9(2)(a) 19/07/2017

1. s 9(2)(a) is an oyster farmer s 9(2)(a), s 9(2)(b)(ii) in Bluff.
2. s 9(2)(a)
3. He stated that as far as he was aware the only brood stock they had, had come from their own breeding stock or from the odd bluff oyster boat.
4. He regularly took oyster spat with him from the hatchery to Big Glory Bay on the Foveaux ferry in a bucket. The last time being in February 2017.

Locate and interview: s 9(2)(a) 2017 30/08/2017

1. s 9(2)(a) confirmed only using local oysters and hatchery bred oysters for spat. Although he once tried oysters sourced from s 9(2)(a). (Discussed in later report)
2. s 9(2)(a), s 9(2)(b)(ii) and he would often take hatchery spat to the farm on the Foveaux ferry.

CONCLUSION: No Biosecurity Act offences detected. The oyster spat transfer did occur in February 2017 however the evidence suggests that this was a standard transfer from s 9(2)(b)(ii) and that there was no reference to Marlborough made as per the allegation.

## ALLEGATION F

DATE: 28/06/2017

ALLEGATION: Oyster spat to <sup>s 9(2)(b)(ii)</sup> from Marlborough.

1. <sup>s 9(2)(a)</sup> a Big Glory Bay oyster farmer had heard through a friend that <sup>s 9(2)(a)</sup> had uplifted oyster spat from Invercargill airport. This spat had come from Marlborough.
2. <sup>s 9(2)(a)</sup> had heard rumours that <sup>s 9(2)(b)(ii)</sup> had received oyster spat from <sup>s 9(2)(a)</sup> (Marlborough oyster farmer) whilst at the Auckland Seafood Festival.
3. <sup>s 9(2)(a)</sup> <sup>s 9(2)(a)</sup> (MPI Aquaculture) <sup>s 9(2)(a)</sup> (MPI Incursion Investigator) had all spoken with <sup>s 9(2)(a), s 9(2)(b)(ii)</sup> who had informed them of having received oysters from <sup>s 9(2)(a)</sup> from Marlborough.

LEGISLATION REFERRED TO: s.134 Biosecurity Act 1993 (moving an organism in contravention of a CAN)

ACTION: Locate and interview: <sup>s 9(2)(a)</sup>

1. <sup>s 9(2)(a)</sup>
2. He recalled that in 2014 or 2015 <sup>s 9(2)(a)</sup> went to the Auckland Seafood festival where they took up approximately 500 dozen oysters to sell.
3. On a few occasions <sup>s 9(2)(a)</sup> would send down oyster spat from the oysters they opened, by plane to Invercargill where <sup>s 9(2)(a)</sup> uplifted them. These were then processed in the hatchery.
4. He did not recall ever hearing about sourcing any spat from Marlborough.

Locate and interview <sup>s 9(2)(a)</sup> (01/08/2017)

1. <sup>s 9(2)(a), s 9(2)(ba)(i), s 9(2)(b)(ii)</sup>
2. <sup>s 9(2)(a)</sup>
3. On the weekend of 24/25 January 2015 <sup>s 9(2)(a)</sup> went to the Auckland Seafood Festival an event organised by Sanford and sponsored by Aquaculture New Zealand Ltd.
4. <sup>s 9(2)(a)</sup> took up 200 dozen unopened oysters to sell at the festival.
5. Whilst at the festival he met and spoke with <sup>s 9(2)(a)</sup>.
6. <sup>s 9(2)(a)</sup> took an interest in late stage larvae that <sup>s 9(2)(a)</sup> was discarding and asked if he could have some, to which <sup>s 9(2)(a)</sup> agreed.
7. <sup>s 9(2)(a)</sup> gave <sup>s 9(2)(a)</sup> a small quantity (12 to 18), no money was exchanged.
8. Approximately a week later <sup>s 9(2)(a)</sup> rang <sup>s 9(2)(a)</sup> to ask how the oysters had fared as he was interested to see if they had survived the trip back to Invercargill.
9. <sup>s 9(2)(a)</sup> told him that some of them had survived but he had thrown them out after he had received advice not to intermix the breeding stock.
10. <sup>s 9(2)(a)</sup> stated that this was the only time that he had supplied oyster larvae to anyone.

<sup>10</sup> No connection to <sup>s 9(2)(b)(ii)</sup>



11. Approximately 2 weeks later he received notification that *B.ostreae* had been detected <sup>s 9(2)(a)</sup> at Port Underwood.

Locate and Interview <sup>s 9(2)(a)</sup> (30/08/2017)

1. <sup>s 9(2)(a), s 9(2)(b)(ii)</sup>
2. <sup>s 9(2)(a)</sup>
3. <sup>s 9(2)(a)</sup> stated that they sourced all their oyster larvae from their own stock with the odd oyster larvae sourced locally from oyster fishers or oyster factories.
4. The only time that <sup>s 9(2)(b)(ii)</sup> ever sourced any oyster larvae from outside Southland was during the Auckland Seafood festival in January 2015.
5. This was <sup>s 9(2)(b)(ii)</sup> first visit to the festival <sup>s 9(2)(b)(ii)</sup>
6. <sup>s 9(2)(a)</sup>
7. Whilst they were opening their own oysters <sup>s 9(2)(a)</sup> put aside any of the ones that were brooding and then sent them off to the airport to be flown to Bluff where <sup>s 9(2)(a)</sup> uplifted them.
8. On the last day of the festival he spoke with <sup>s 9(2)(a)</sup> and noticed that he had oysters that he could see were brooding.
9. He asked <sup>s 9(2)(a)</sup> if he could put some aside for him and <sup>s 9(2)(a)</sup> ended up giving him about half a dozen.
10. <sup>s 9(2)(a)</sup> extracted the larvae from the oysters and placed them in plastic pottles. He then flew back from Auckland that evening with them.
11. He took them to the hatchery the following day but noticed that most of them were not suitable to go into the hatchery.
12. He had a discussion with <sup>s 9(2)(a)</sup> and they decided that because of the small amount remaining and the risk of mixing oysters from an unknown source that he would destroy the remaining larvae.
13. He did this by simply tipping them onto the floor.<sup>11</sup>
14. A couple of weeks later he heard about the *B.ostreae* outbreak in the Marlborough Sounds.

#### CONCLUSION:

No Biosecurity offence detected. The movement of oyster larvae between <sup>s 9(2)(b)(ii)</sup> (Marlborough) and <sup>s 9(2)(b)(ii)</sup> (Bluff) occurred on 25 January 2015 nearly 6 months before the CAN, *B.ostreae* was not detected until 11 February 2015 and the CAN issued 2 June 2015.

The obtaining of spat by <sup>s 9(2)(a)</sup> is likely a breach of the licence requirements under the Freshwater Fish Farming Regulations 1983. Clause 10 of <sup>s 9(2)(b)(ii)</sup> Licence No. <sup>s 9(2)(b)(ii)</sup>

- 10 *The Licensee may only obtain stock from an authorised Licensed Fish Receiver .... or by any specific approval granted by the Licensor or as specified in a general authorisation.*

This offence occurred on January 25 2015 placing it outside the two year limitation period as per s.236 of the Fisheries Act 1996 meaning that no charges can be filed pursuant to this section.

<sup>11</sup> This method of destroying larvae was confirmed by both <sup>s 9(2)(a)</sup> and <sup>s 9(2)(a)</sup>



## ALLEGATION G

DATE: June 2017

### INFORMATION:

1. s 9(2)(a), s 9(2)(b)(ii) Invercargill.  
s 9(2)(a) stated that he had received information from a local fishing skipper that he had heard from s 9(2)(a) employee who had been working at an oyster farm in Stewart Island that they had been suffering large oyster mortalities, this information was alleged to have occurred around December 2016.
2. s 9(2)(a) had heard through a friend that s 9(2)(a) had told him about large mortalities of oysters whilst working at the oyster farm in Big Glory Bay, Stewart Island.

LEGISLATION REFERRED TO: s.53 Biosecurity Act 1993 (Duties of owners of organisms)<sup>12</sup>  
31 Freshwater Fish Farming Regulations 1983 (movement of diseased fish)<sup>13</sup>

ACTION: Locate and interview s 9(2)(a)

1. s 9(2)(a)
2. s 9(2)(a)
3. Towards the end of 2015 s 9(2)(a) noticed higher mortality rates on the oyster lines.
4. The reason for the mortalities was put down to overstocking and not servicing the cages as they needed regular cleaning and they had a tendency to foul up.
5. The mortalities ranged from 2% to 15%.
6. s 9(2)(a) stated that it was difficult to assess stock losses as the stock was often shuffled between the cages making it difficult to gauge actual mortalities.
7. The first s 9(2)(a) heard of Bonamia was in June 2017.

Locate and interview: s 9(2)(a)

1. s 9(2)(a)
2. s 9(2)(a)
3. s 9(2)(a) noticed from the beginning that they were getting high mortalities on some of the lines.
4. Some of the cages were getting up to 30% mortality.
5. A number of cages with high mortalities were also covered in weed due to lack of maintenance although some were not.
6. When s 9(2)(a) was told about the mortalities he told s 9(2)(a) that it was a result of the cages not being serviced. "He didn't seem particularly worried about the mortalities..."

<sup>12</sup> S53. the owner or person in charge of an organism which that person knows or suspects constitutes, contains, or harbours a pest or unwanted organism must not—  
... (c) propagate, breed, or multiply the pest or unwanted organism...

<sup>13</sup> R31. No person shall—

- o (a) transfer any diseased fish from any fish farm to any other fish farm; or
- o (b) release into any waters any diseased fish kept on any fish farm

Locate and interview:

s 9(2)(a)

1. s 9(2)(a)
2. "As far as I am aware we were not having any excess mortalities on the farms, s 9(2)(a). I certainly would have heard about it if there was. Whilst I was working there we would have the odd mortalities but this was normal and probably related to too much fresh water in the bay."

Interview:

s 9(2)(a)

1. s 9(2)(a)
2. s 9(2)(a)
3. He said that the mortalities that they had experienced at the farm in Big Glory Bay were about 5% to 10% on average with some cages having mortalities as high as 20%.
4. He said that the high mortalities were often in cages that were not cleaned properly due to lack of resources, i.e no petrol for the generator or they may have been too high and affected by rain water.
5. There was never any thought that the mortalities were as a result of Bonamia.
6. s 9(2)(a) stated that he was aware of the Bonamia outbreak in Marlborough and that there was never any thought that the mortalities in the farm were the result of this but that they were normal and could have been caused by any number of reasons.

Interview:

s 9(2)(a)

1. Mortality records of oysters at the farm were not recorded as it was impractical to do so.
2. s 9(2)(a) stated prior to the *B.ostreae* being found in Big Glory Bay he had not noticed any abnormal mortalities and would have been expected to have been told about these by the staff working at the farm if we had.  
"I never suspected the presence of *Bonamia Ostreae* s 9(2)(a), s 9(2)(b)(ii) and was surprised when it was found."
3. He also stated that after receiving notification of the *B.ostreae* outbreak he thought about the larvae that he had received from s 9(2)(a),  
"the thought did cross my mind at that time regarding the larvae that I had gotten from him s 9(2)(a) but I was confident that none of the larvae would have gotten into our system."

Interview:

s 9(2)(a), s 9(2)(b)(ii), s 9(2)(ba)(i)

Port Underwood

Marine Farm

1. s 9(2)(a) stated that in the early days they tried to grow oysters in cages but they moved away from them as they were uneconomical due to the high mortalities and high labour commitment that occurred using the cage system.

Interview:

s 9(2)(a)

1. s 9(2)(a) also had previously used the cage system to grow oysters but found this method unsuitable and now uses a system where the oysters are 'pinned' onto individual lines which gives faster growth rate and less mortalities.

DNA Testing of Juvenile Spat located at s 9(2)(b)(ii) Stewart Island

1. June 28 2017 a sample of juvenile oysters were removed from s 9(2)(b)(ii), s 9(2)(ba)(i) in Big Glory Bay, Stewart Island. The oysters were obtained from the oyster nursery.
2. 50 samples DNA tested by s 9(2)(a), Senior Scientist at the Animal Health Laboratory. Results were that the oysters were from Stewart Island stock and were not from Marlborough stock.

#### CONCLUSION:

1. The s 9(2)(b)(ii) in Big Glory Bay did suffer oyster mortalities of somewhere between 2% and 30%, there were no records kept to corroborate this, these figures are calculated from witnesses at the farm.
2. As this is a relatively new industry in New Zealand it is unknown what level of mortalities can be expected or what is the industry norm, however it is accepted that the cage system of growing oysters does cause higher mortalities than other more commonly used systems.
3. The reasons for the mortalities are unknown and could have been be for a number of reasons including, overstocking, disease, lack of maintenance, water temperature, salinity or the *B.ostreae* parasite.
4. The employees of s 9(2)(a), s 9(2)(b)(ii), s 9(2)(ba)(i) have stated that they did not suspect that the mortalities were the result of *B.ostreae*.
5. None of the s 9(2)(b)(ii), s 9(2)(ba)(i) staff interviewed indicated that s 9(2)(a) had ever mentioned *B.ostreae* as a cause of mortalities or being in the hatchery.
6. s 9(2)(a) stated that he did not suspect that the mortalities s 9(2)(a) was the result of *B.ostreae*.
7. He further stated that whilst he was aware of the possibility of having received 'infected' larvae from s 9(2)(a) he was confident that none of this larvae had entered into the hatchery main system.
8. The phone conversation that s 9(2)(a) had with s 9(2)(a) where he told s 9(2)(a) that he had destroyed the larvae would appear to corroborate this claim as there appears to be no obvious motive to fabricate this assertion.
9. There is no physical evidence to prove that any oyster spat received by s 9(2)(a) from s 9(2)(a) was infected by *B.ostreae*.
10. There is no physical evidence to prove that either s 9(2)(b)(ii), s 9(2)(ba)(i) were infected by the *B.ostreae* parasite. At the time of the investigation s 9(2)(b)(ii), s 9(2)(ba)(i) was closed for the winter season, there was no oyster spat present and the system had been bleach cleaned and flushed. Testing of waters around both of these facilities have proven to be negative for *B.ostreae*.




## CONCLUSION

There is no evidence to prove that any offences have been committed in regards to the investigation aim of establishing whether:

*'the presence of Bonamia Ostreae located in Big Glory Bay, Stewart Island could be attributed to non-compliant activity by any person or persons.'*

We have detected non-compliance in regard to record keeping<sup>14</sup> however as discussed earlier in the report there are either issues regarding evidential sufficiency or the matter has fallen outside the statute of limitations.

Out of Scope



This investigation is complete.

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<sup>14</sup> R 24(1) & 25 (1)(c) Freshwater Fish Farming Regulations 1983

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