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## Stakeholder Consultation on Progressive Management Pathway (PMP) to Improve Aquaculture Biosecurity

World Bank Headquarters, Washington, D.C. 10-12 April 2018

# Biosecurity Aquaculture, South Africa

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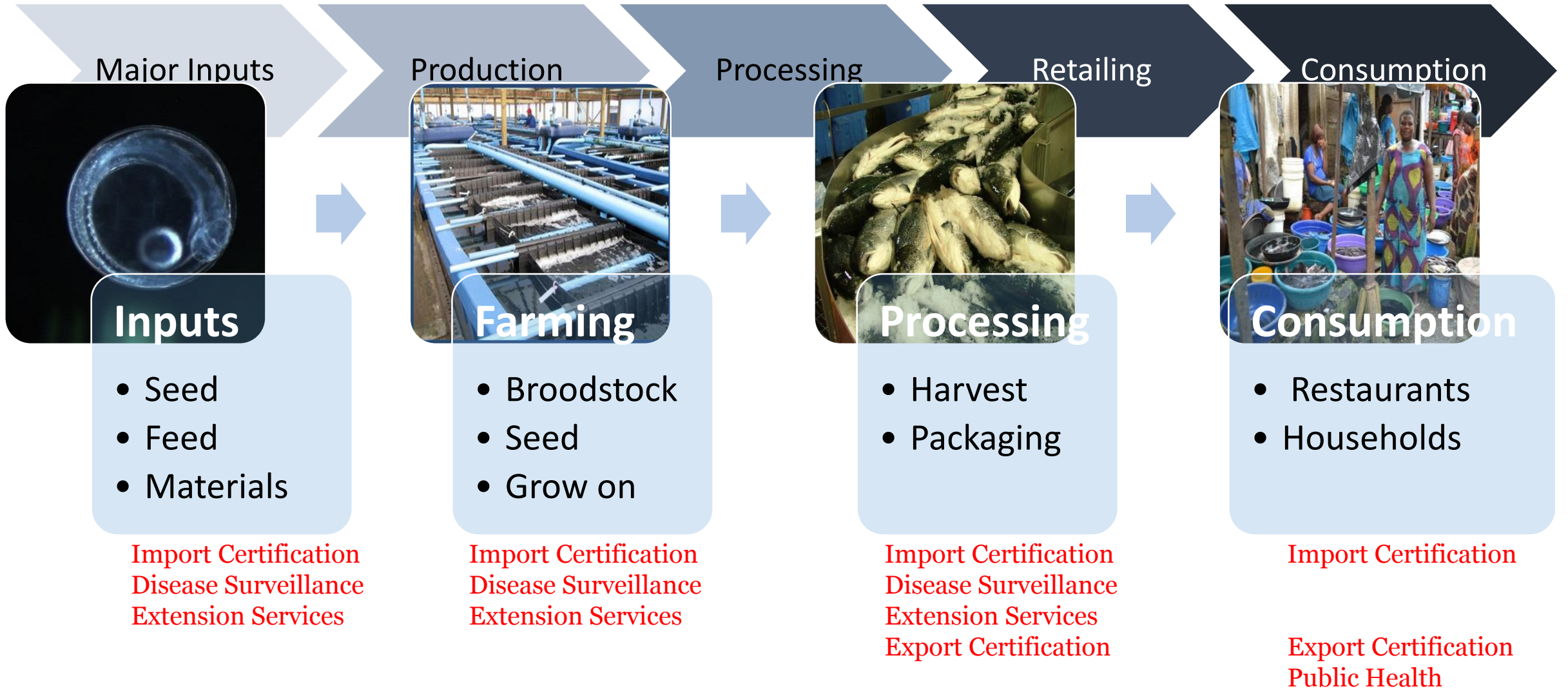
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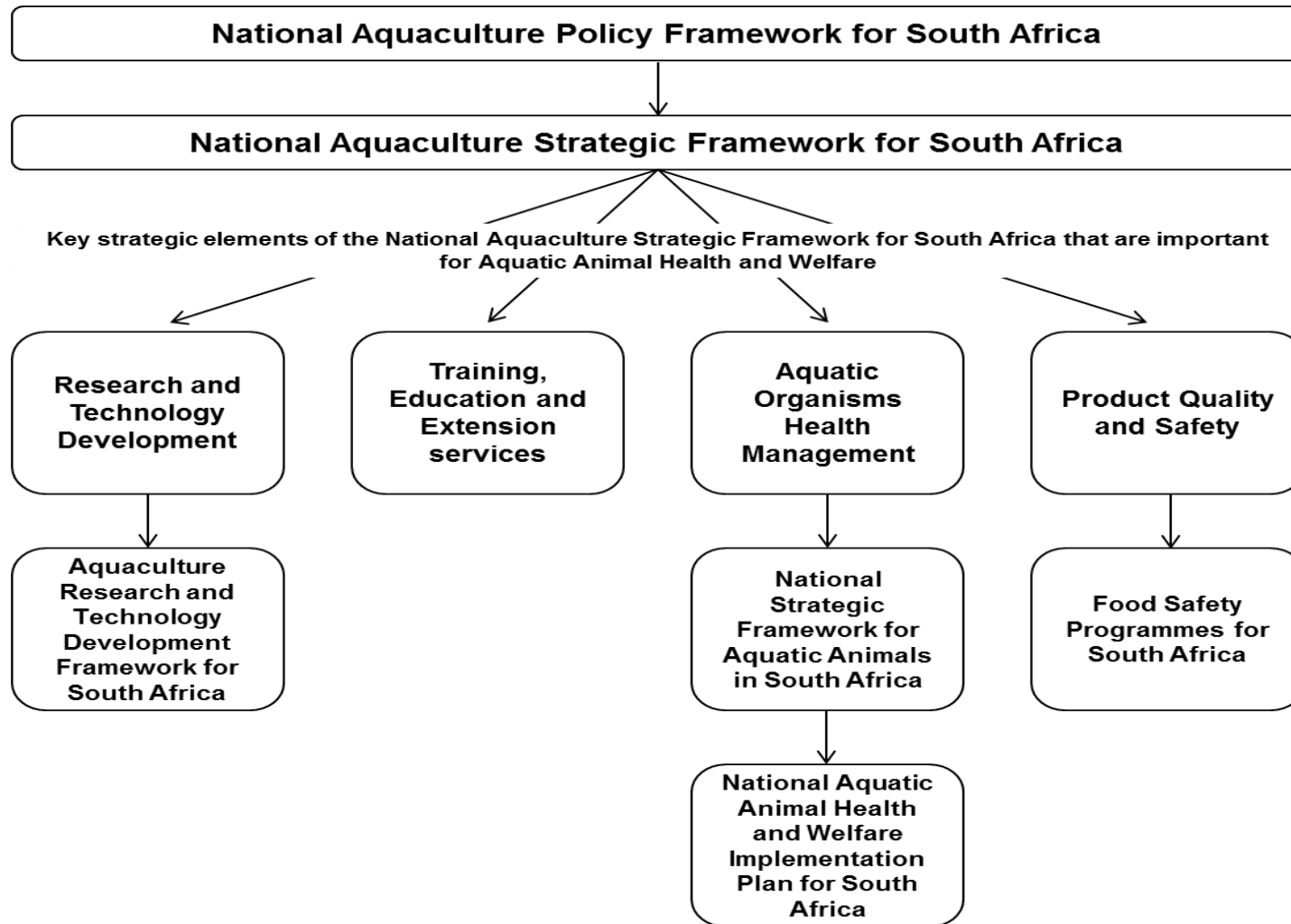
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# Generic Aquaculture Supply Chain



# National aquatic animal health program



# Regional Aquatic Biosecurity Strategy for SADC

- RSA / DAFF - Instrumental active participants with the FAO in the development of the **Regional Aquatic Biosecurity Strategy for SADC**
- Regional Workshop held in Durban in 2014
- Approved by the SADC Ministers of Agriculture and Food Security, the document published in all three SADC official languages, English, French and Portuguese.
- Approval to establish a SADC Aquatic Animal Health Sub-Committee, which will report to both the SADC Fisheries Technical Committee and the Livestock Technical Committee



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# OIE Listed Diseases – Biosecurity Challenges

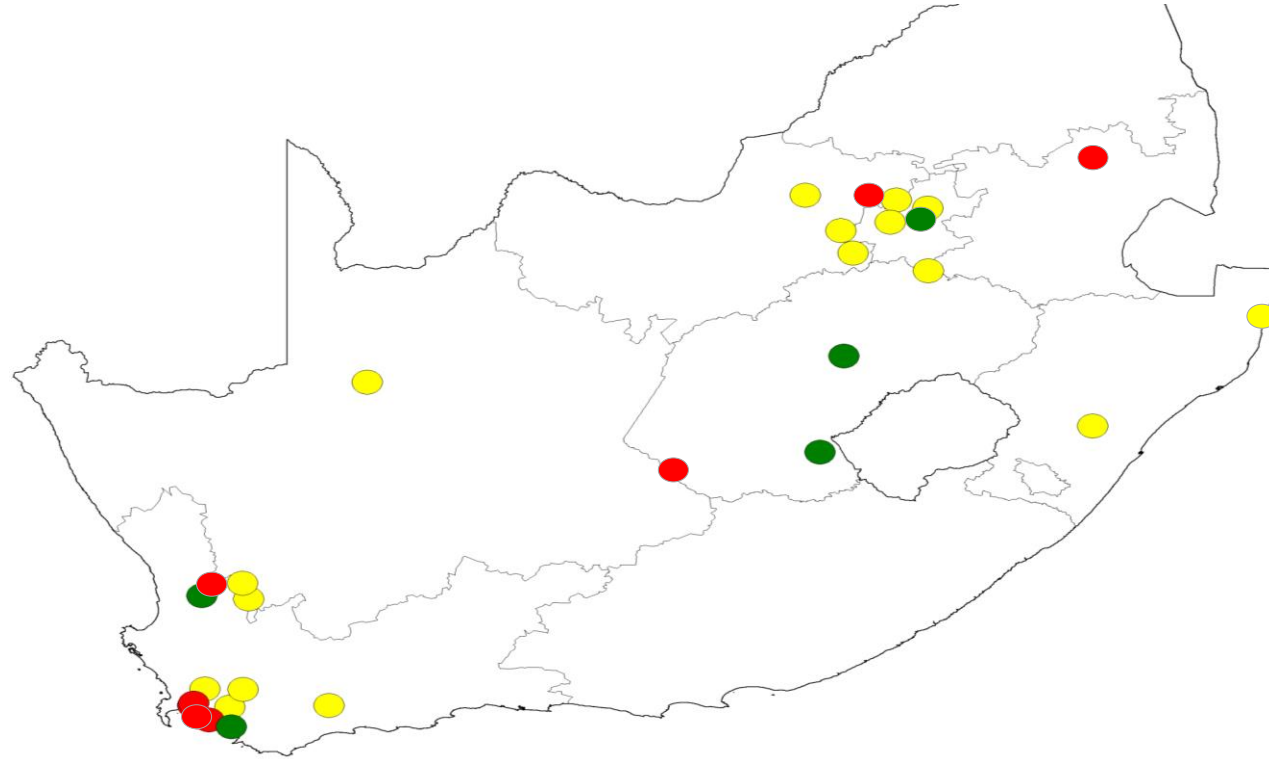
Mollusc	Crustacean	Fish
Abalone herpesvirus (AVG)	Crayfish plague ( <i>Aphanomyces astaci</i> )	Epizootic haematopoietic necrosis (EHN)
<i>Bonamia ostreae</i>	Yellow head virus	<b><i>Aphanomyces invadans</i> (EUS)</b>
<i>Bonamia exitiosa</i>	Hypodermal and haematopoietic necrosis	<i>Gyrodactylus salaris</i>
<i>Marteilia refringens</i>	Infectious myonecrosis	HPR-deleted or HPRO Infectious salmon anaemia virus (ISA)
<i>Perkinsus marinus</i>	Necrotising hepatopancreatitis	Salmonid alphavirus
<i>Perkinsus olseni</i>	Taura syndrome	<b>Infectious haematopoietic necrosis (IHNV)</b>
<i>Xenohaliotis californiensis</i> (Whithering Syndrome)	White spot disease	<b>Koi herpesvirus disease (KHV)</b>
	White tail disease.	Red sea bream iridoviral disease
		Spring viraemia of carp
		<b>Viral haemorrhagic septicaemia (VHS)</b>




Currently listed as a controlled disease in RSA Animal Diseases Act (#35 of 1984)  
 Confirmed and / or reported from RSA





# EUS in South Africa

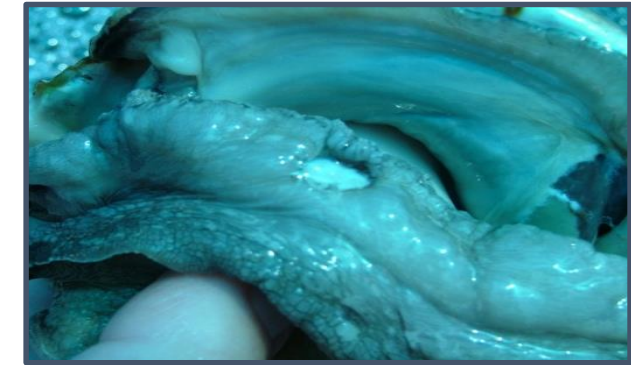
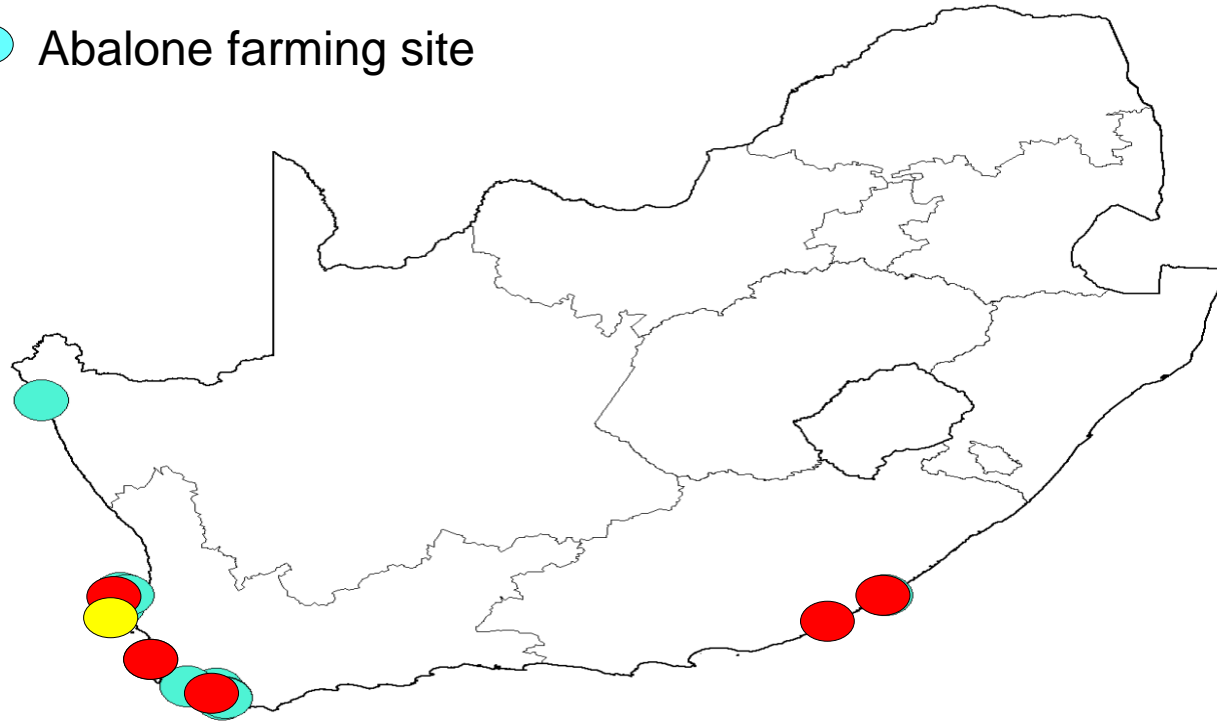


-  Suspect cases based on prevalence of gross clinical signs
-  Unconfirmed tested cases
-  Confirmed cases



# HN distribution based on archived tissue samples

- Infected site confirmed by Q-PCR
- Suspect infected site
- Abalone farming site

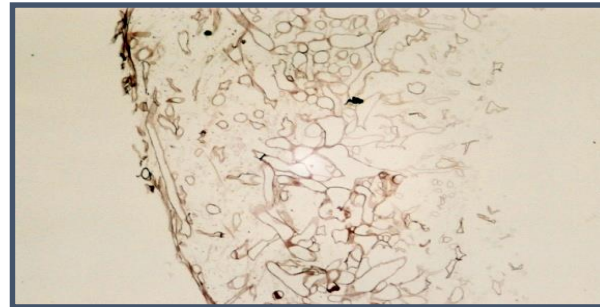
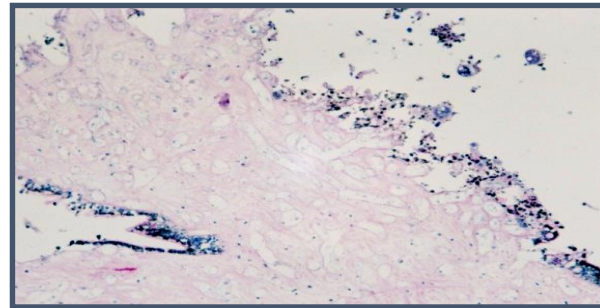
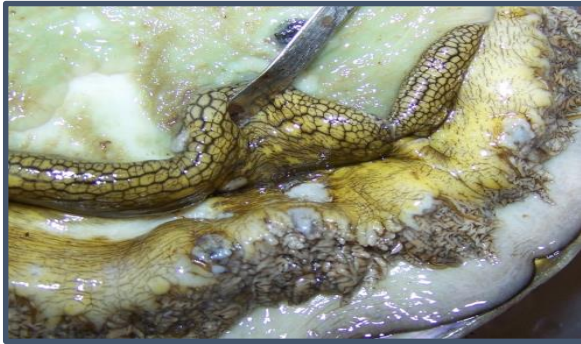




# Diagnostic Methods

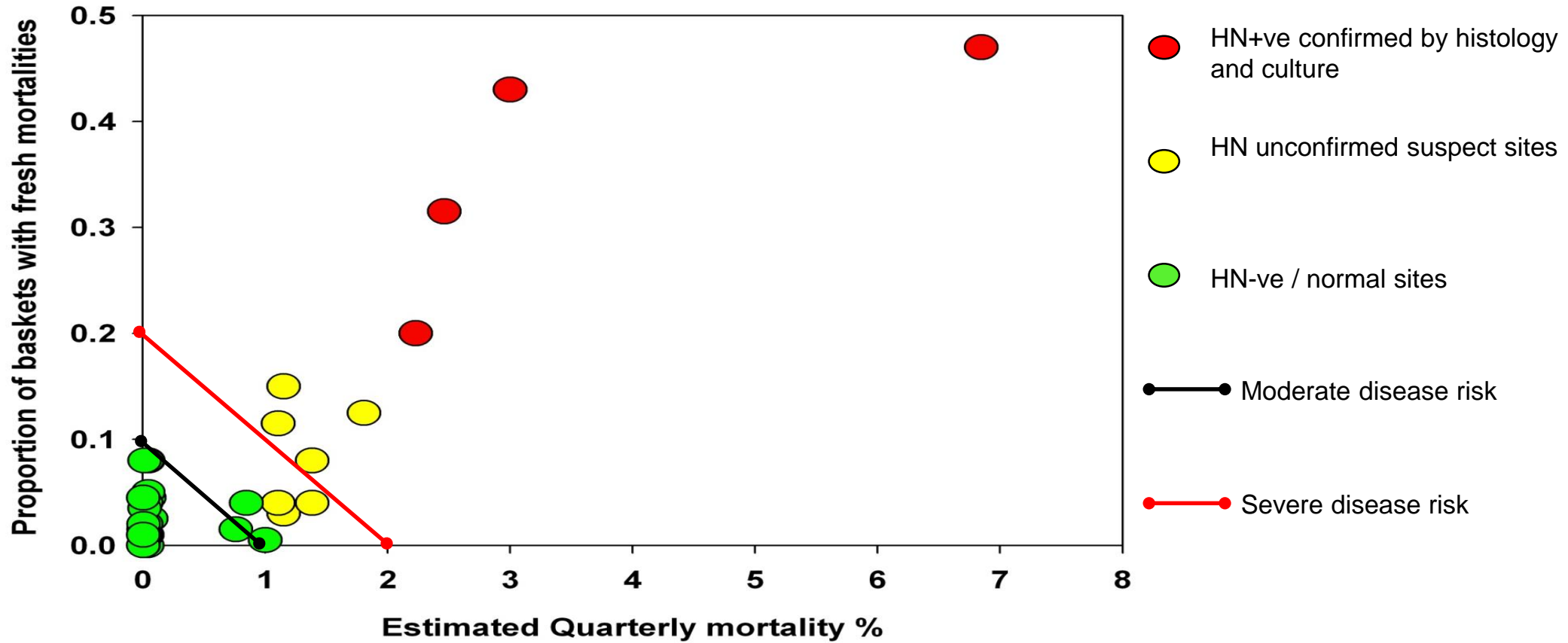
Field diagnostic methods

Clinical / laboratory methods





# Risk Based Surveillance for *Haliotricida noduliformans*



# Control and Prevention

**DISEASE PRESENT?**



Disease risk greater than  
**SEVERE?**



Disease risk greater than  
**MODERATE?**



No significant disease findings  
No further recommendations

**YES**



Quarantine for 2 years

**YES**



Re-inspect within 3 months  
Measures **MUST** be taken to control mortalities

**YES**



Re-inspect within 6 months  
Measures may be required to control mortalities

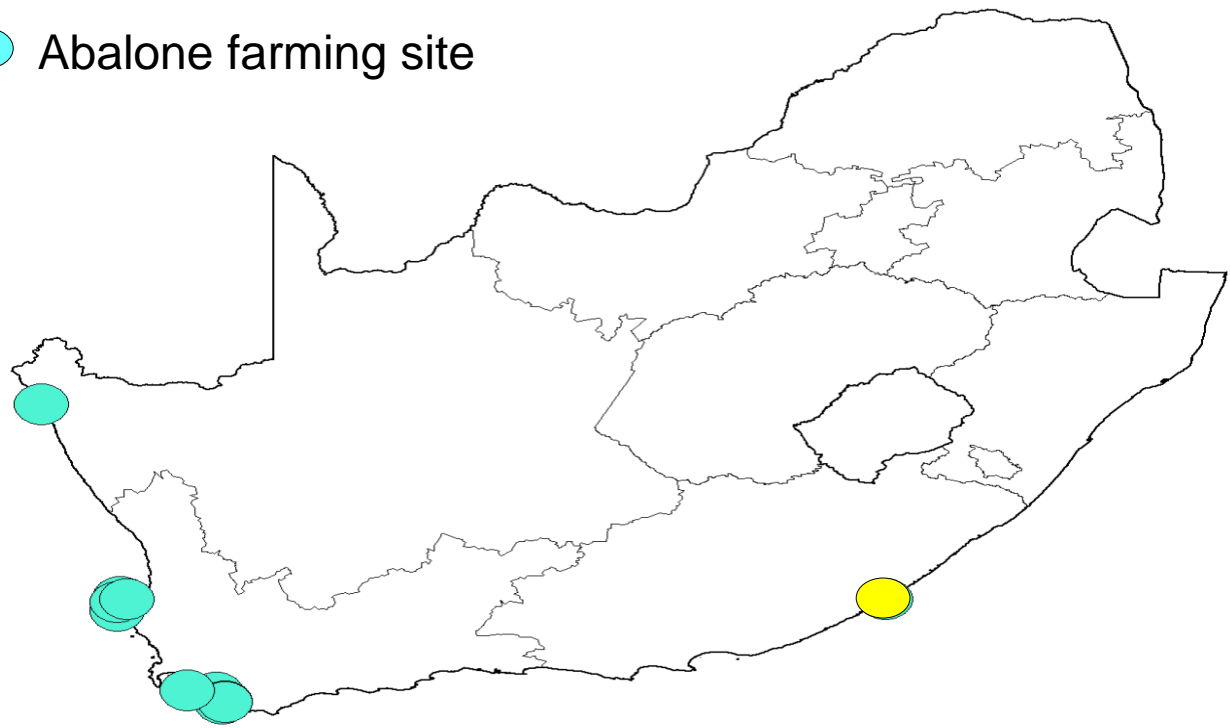


# Current HN active sites

● Infected site confirmed by Q-PCR

● Suspect infected site

● Abalone farming site





# Health Management Procedures



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## Health management procedures for South African abalone produced for export

November 2016

Department of Agriculture Forestry and Fisheries  
Branch: Fisheries Management  
Enquiries: Directorate Sustainable Aquaculture Management



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## Health management procedures for South African bivalves (oysters and mussels) produced for export

Department of Agriculture, Forestry and Fisheries  
Branch: Fisheries Management  
Enquiries: Directorate Sustainable Aquaculture Management



# Basic Biosecurity Conditions

The  sets out 3 provisions for basic biosecurity:

1. The disease (or suspicion thereof) must be **notifiable to the competent authority**.
2. An **early detection** system must be in place.
3. The introduction of the disease must be prevented by **appropriate import requirements**.

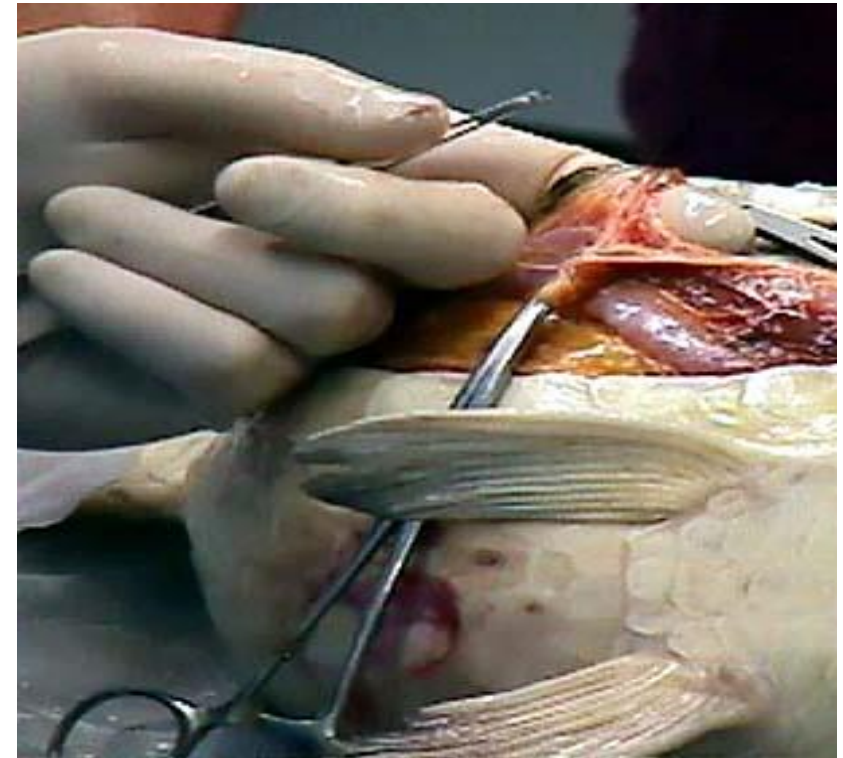


# Current Implementation challenges

Legislative Framework – Aquaculture Bill to complement the Animal Diseases Act

Veterinary Capacity (Aquatic Animal Health) – International Training (Stirling University)

Diagnostic capacity (HR and Infrastructure)





**Thank You**

