**Abstract**

Scottish Government, in co-operation with relevant stakeholders including aquaculture and wild fisheries interests, has produced a contingency plan to deal with the presence and detection of the monogenean helminth parasite Gyrodactylus salaris within Scotland. G. salaris has caused extensive mortality among wild Atlantic salmon (Salmo salar) populations in parts of Norway. This, combined with the evidence that Scotland’s wild salmon strains are susceptible to the pathogen, highlights the need to prevent the introduction of the parasite into Scotland and elsewhere in the United Kingdom. It also highlights a requirement to be prepared to act in the event of an outbreak should biosecurity be breached and G. salaris become established in Scottish waters. The policy of the contingency plan is based upon eradication, where this is deemed possible, and where it is not, a policy of containment prevails. This poster considers the steps necessary to help prevent the introduction of G. salaris into Scotland and gives an outline of the contingency plan with emphasis on its development and key components.

**Introduction**

Unlike many aquatic animal disease agents, which are often most pathogenic to farmed populations, G. salaris causing gyrodactylosis, is most detrimental to wild fish. Surveillance on fish farms and from wild fisheries has been conducted in Scotland over the past 15 years suggesting the absence of G. salaris. Scottish Atlantic salmon strains have been identified as being susceptible to the pathogen (MacKenzie & Bakke, 1994), and it is probable that its introduction would have catastrophic effects to wild fisheries in Scotland which are valued at over £100 million to the Scottish economy1.

**Steps to prevent introduction**

Recognition of this threat and the potential devastation posed by G. salaris has led to the launch of an awareness campaign to increase the profile of the parasite and help educate to prevent its introduction. Preventative measures include:

- Home & Dry campaign – advice, posters and leaflets to anglers and water sports sectors
- A dedicated website detailing relevant information and links to posters and leaflets: www.infoscotland.com/gsbug/
- Road shows offering advice, instruction and recommendations to the angling sector

Whilst the aim is prevention rather than cure, backup investment in a Contingency Plan has been made which will be enacted in the event that G. salaris is detected in Scotland and/or the United Kingdom.

**Gyrodactylus salaris Contingency Plan**

1. Disease response assumptions
   - Policy objective: eradication or containment
   - National standards and movement restrictions
   - Detection and diagnosis
   - Criteria for suspicion or confirmation
   - Stakeholder support
   - Factors to consider regarding eradication
   - Information on treatment
   - Chemical application
   - Gene banking and restoration
   - Legislative framework
   - Disease control and aquaculture
   - Water – biocide products
   - Operational response
   - Catchment information and data

2. Command and control, structure and responsibilities
   - Role of Disease Strategy Group
   - Disease management
   - Organisations
   - Job description
   - Policy responsibility
   - Role of National Disease Control Centre
   - Expert and other groups
   - Government and agencies
   - Roles and responsibilities

3. Field Operations
   - Operations Manual detailing focus on:
     - Suspicion
     - Confirmation
     - Movement restriction
     - Field investigations
     - Epizootic investigations
     - Diagnosis
     - Eradication
     - Demonstrating freedom
   - Operational plan for a Norwegian river treatment to be incorporated into next version of the contingency plan

4. Communications
   - Strategy & policy awareness
   - Communication co-ordinator
   - Internal chain of command
   - Media briefing
   - Publicity and information dissemination
   - Website
   - Regular progress reports
   - Freedom of Information
   - Draft minutes and briefing summaries
   - Letters, press release, meeting agendas
   - Q&A brief
   - Specialist groups – target publicity

5. Resources
   - Field operations
   - IT and telecommunications
   - Procurement
   - Laboratories

**Table 1. Summary of the development of Gyrodactylus salaris (Gs) Contingency Plan for Scotland**

<table>
<thead>
<tr>
<th>Process</th>
<th>Areas Identified</th>
<th>Further Details</th>
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<tbody>
<tr>
<td>Norwegian experience</td>
<td>Regular consultation with Norwegian authorities involved with Gs in Norway. Invitation to SG staff to observe numerous river treatments</td>
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<tr>
<td>Designated task force</td>
<td>Encompassing representatives from Government departments/agencies, aquaculture industry, wild fisheries, industrial and recreational water users.</td>
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<tr>
<td>Task Force – Sub Groups</td>
<td>Prevention and containment To assess the measures required to prevent spread and contain Gs.</td>
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<td></td>
<td>Contingency planning Produce an effective contingency plan.</td>
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<td>Statutory controls Identify the necessary controls required and ensure that these are put in place.</td>
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<td></td>
<td>Research and development Maintaining up to date scientific knowledge and an awareness of the distribution of Gs within Europe.</td>
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<td></td>
<td>Gene banking and river restocking Identification of the requirements for repopulation following eradication.</td>
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<tr>
<td>Contingency Plan</td>
<td>Desk top exercise Using fictitious scenarios, elements of the plan were tested to consider response. Gaps of knowledge were identified and amendments made.</td>
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<td>Evaluation</td>
<td>Further recommendations Address gaps in scientific knowledge, training, unanswered questions.</td>
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<td></td>
<td>Annual review To consider operations and legislative changes or other updates and amend accordingly.</td>
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**References cited**


1 A Strategic Framework for Scottish Freshwater Fisheries.

**Acknowledgement**

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