



# Wild salmonids in costal waters of the Westfjords

Eva Dögg Jóhannesdóttir

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# Goals

- **Wild salmonid status in the Icelandic Westfjords**
- Main emphasis on parasites especially sea lice
- Other health evaluation:
  - MFRI: Examination of stomach content
  - MFRI: Otolith, scales (age) DNA evaluation
  - Keldur: Gills with emphasis on parvicapsulosis
- Indication of distribution of wild salmonid





# Cooperation 2020

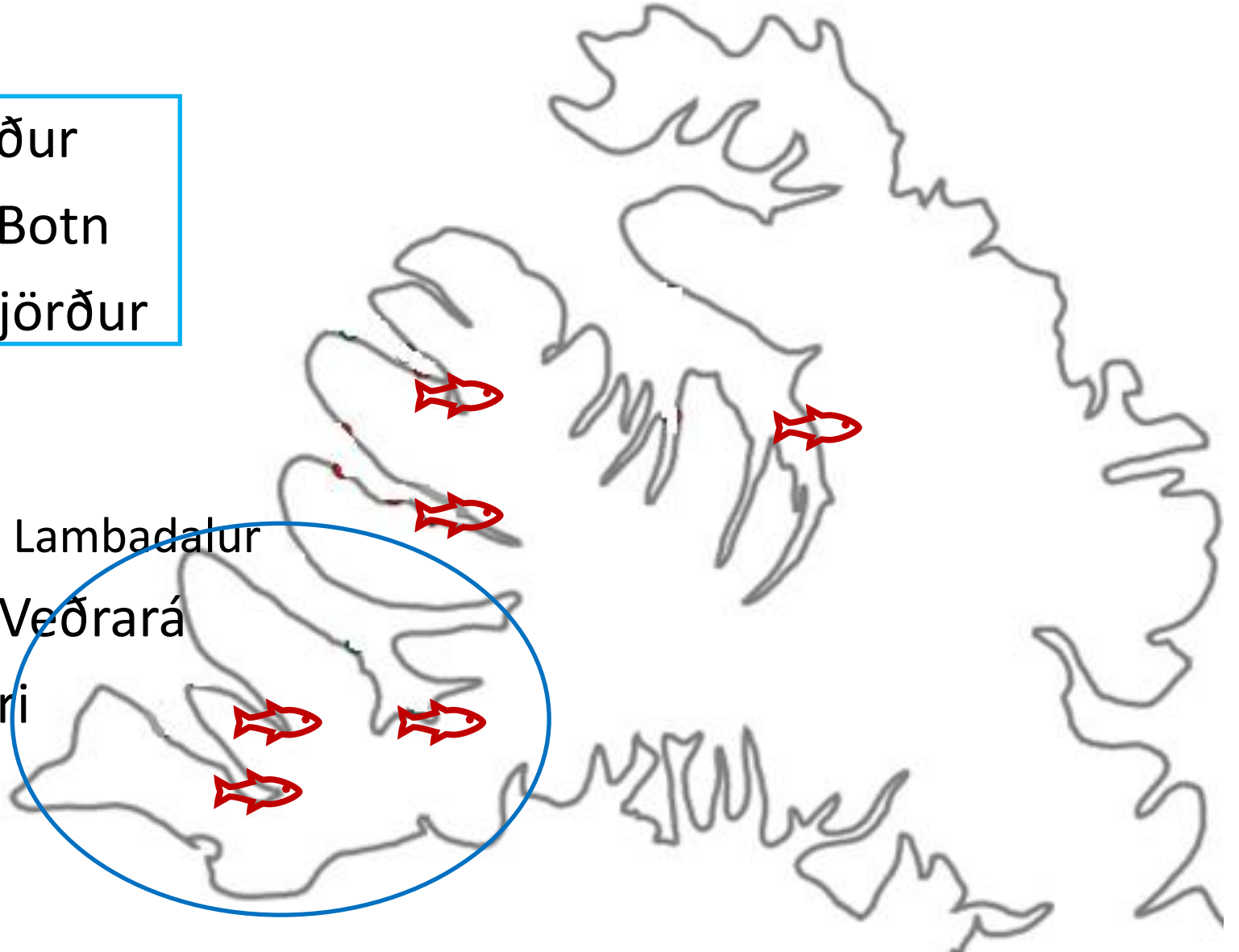
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- Arctic Fish – Management – Finance – Working hours
- Arnarlax – Finance – Working hours
- Háafell – Working hours
- MFRI – Hafrannsóknarstofnun – Consultation – Lab work + AF access
- Keldur - Consultations – Working hours - Lab work
- Hólar University – Student assistant
  
- More partners in 2021 and years to come

# Field work - Locations

- Patreksfjörður - Ósafjörður
  - Tálknafjörður – Norður Botn
  - Arnarfjörður - Trostansfjörður
- Dýrafjörður
    - Meðaldalur
    - Hjarðardalur, Hvammur, Lambadalur
  - Önundarfjörður – Innri-Veðrará
  - Ísafjarðardjúp – Nauteyri





# Fieldwork

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- Gill nets – 17 mm, 21 mm, 26 mm (25 m length)
- Perpendicular from shore at low tide
- Nets monitored until high tide
- Fish
  - Removed almost as soon as they are caught
  - Killed with a blow to the head and put in plastic bag
  - Watched for lice that might have gone on boat or hands
    - Rouge lice put in bag

## Lab work

- Sea lice are in alcohol – stereolup at MFRI
- Otoliths and scales bagged - MFRI
- Psudobranchia in alcohol and formalin – Labwork Keldur
- All fish have been disected
  - Stomach contents frozen or in alcohol – Labwork MFRI
  - Otholits and scales collected – Labwork MFRI
  - Tissue samples collected (part of pectoral fin) – Labwork MFRI







## Preliminary findings

- In all 73 (66 in south) salmonid caught – 158 salmonids in 2017
  - 14 (8 south) days of laying nets vs 10 days in 2017
- Patreksfjörður – 9 (3 days)
- Tálknafjörður -34 (3 days)
- Arnarfjörður – 25 (2 days)
- Dýrafjörður – 4 (4 days)
- 55 Sea trout
- 18 Arctic charr



# Fish size



Average weight 132 g

Min 29 g – Max 1623 g



Average length 20,4 cm

Min 13,3 cm – Max 49,5 cm



# Preliminary findings - Lice

- Farmed salmon near to lice free
- Wild salmonids up to 100% infested



# Preliminary findings - lice

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- Prevalence
  - Patreksfjörður 100%
  - Tálknafjörður
    - 2020 - 44%      2017 – 90%
    - 2020 - 22%      2017 – 100%
  - Arnarfjörður
    - 2020 - 86%      2017 – 90%
    - 2020 - 67%      2017 – 100%
- Intensity and abundance lower?
  - Sample work to begin soon at MFRI





# What is next?

- Planning for 2021 started
  - Same samples
- Same partners
  - Possibly others
- Equipment in Dýrafjörður
  - Arctic Fish





Thank you