



BAKKAFROST

ESTABLISHED 1968

**Status IPM Sea Lice
Faroe Islands 2013**



Facts about the Faroe Islands

- 18 islands
- 1400 km²
- 1100 km coastal line
- 48.000 people, each of them producing
 - 1½ sheep pr year
 - 1½ tonnes of Salmon pr year





Facts about sealice monitoring

- Countings done bimonthly april-december
- Countings done by same independant company **Fiskaaling** in all farms
- Reporting to authorities done by **Fiskaaling**
- Bioassays performed by **Fiskaaling**
- Monthly status meetings with representatives from all farming companies arranged by **Fiskaaling**



Company agreement

- All farming companies in the Faroes sharing detailed information
 - Treatment data
 - Compound
 - Date(s) of treatment
 - Dosage – concentration and time
 - Lice numbers
 - Average lice number multiplied with fish numbers
 - Percentual “ownership of problems”
 - Graphic visualisation of licestatus on national level



Medical treatments

- Medicinal rotation and windows
 - Only allowed to use each medicament once a generation
 - Pyrethroids only allowed in coordinated treatment in march/april (and only if bioassays indicates effect)

Alphamax
Magnum

Medical treatments

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 - Only allowed to use each medicament once a generation
 - Pyrethroids only allowed in coordinated treatment in march/april (and only if bioassays indicates effect)
 - Emamectin benzoate only allowed in coordinated treatment in march/april (and only if bioassays indicates effect)
 - Hydrogen peroxide “ad libitum”

- All bath treatments in fully closed tarpaulins



- **Hydrogen peroxide**

- For several years we have believed lice survives even though we see a good* effect in the single farm (80-90% removal)
- But even if 95% effect we see survival and this autumn a trial was done
 - Surviving, free floating sea lice collected and brought to research facility
 - Did effectively attach on licefree salmon in tank
 - Produced eggstrings, hatched and with viable naupliistrial not ended yet...


- *Good effect – relative...depending a bit on what other options you have.....



Coordination

- Coordinated treatment
- All farms
 - March/april – spring action, one month open window for
 - Emamectin benzoate (Slice)
 - Pyrethroids (Alphamax/Betamax)
 - November/december - autumn action, one month open window (suggested, not agreed)
 - Organophosphate (Salmosan)

Non-medicinal

- Mussels been discussed, but not tried....
- Cleaner fish?
 - No natural naive wrasse species
 - Lumpfish 
 - Trials performed with the lumpfish, promising
 - Production still not upscaled and not yet predictable enough...



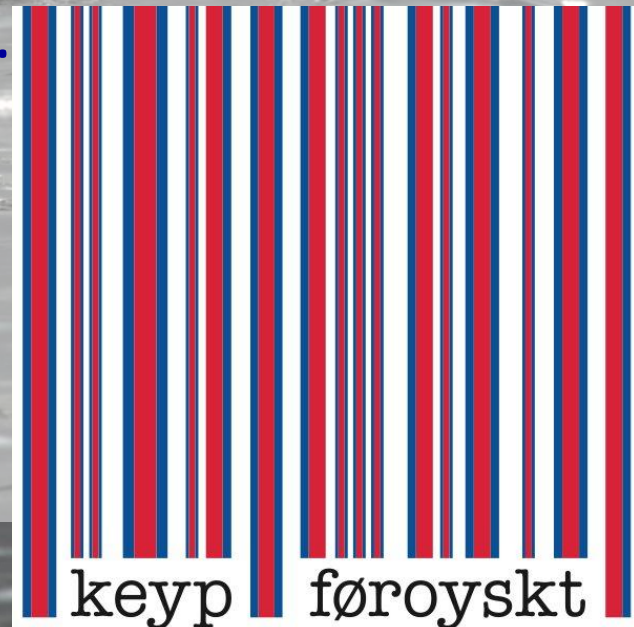
Non Medicinal

- **Skirts – tried, low succes**
 - Currents giving problems
- **Localisation of farms and sites**
 - More exposed, in the fjord mouth – difficulties with treatments due to weather and currents
- **One-generation areas**
 - In place ...in a way...
- **Functional feeds**
 - So far not a succes

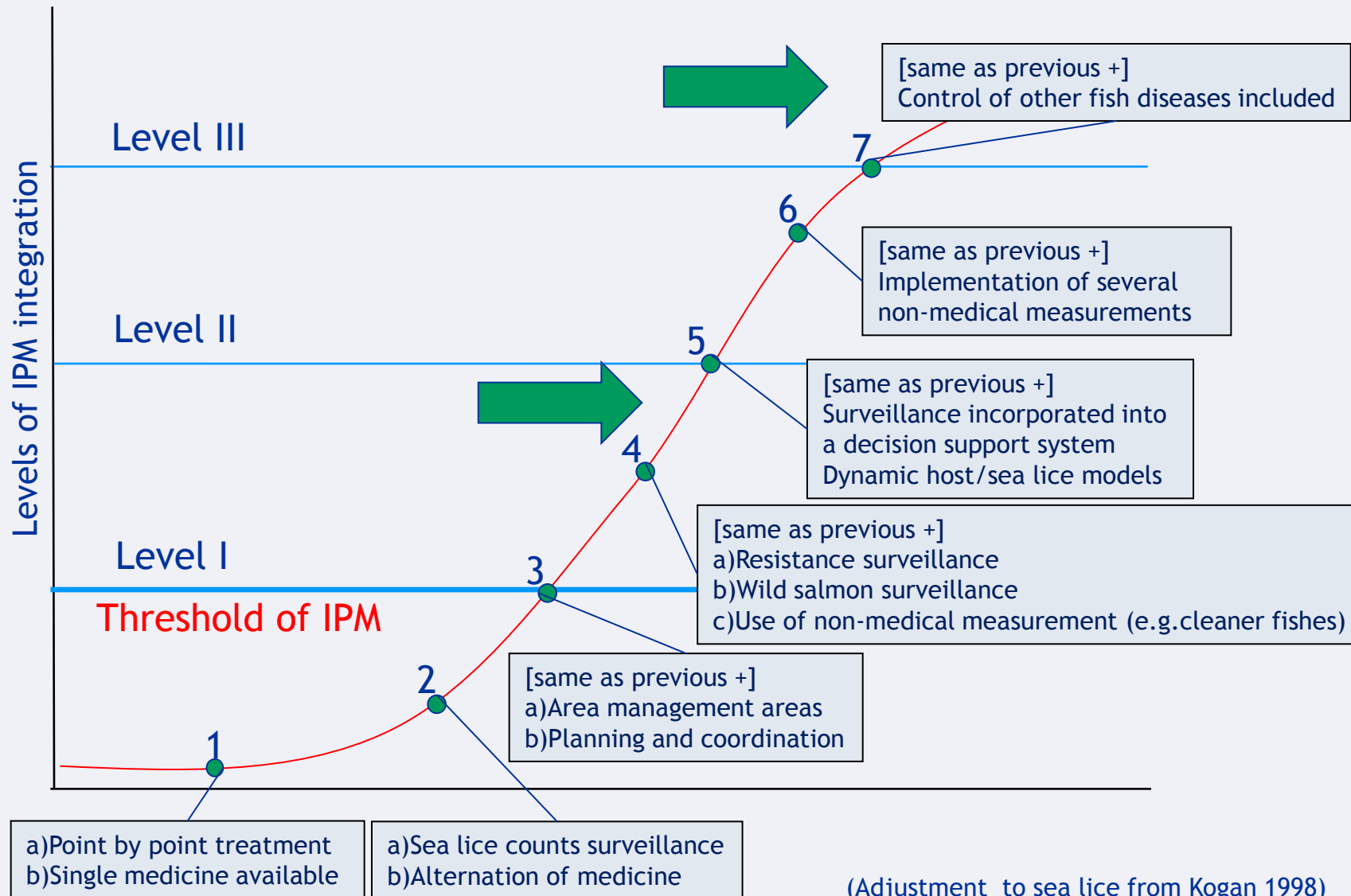


Attachments

- KISS - Important – and simple – to remember:
 - No larvae-producing females – no infestations !!
 - In the Faroes, there are only a very limited number of wild fish, so larvae attaching to the farmed fish are known....



Continuum from conventional sea lice control to level III IPM





Thanks for your attention 😊