Achieving sustainable use of wrasses as cleanerfish on salmon farms

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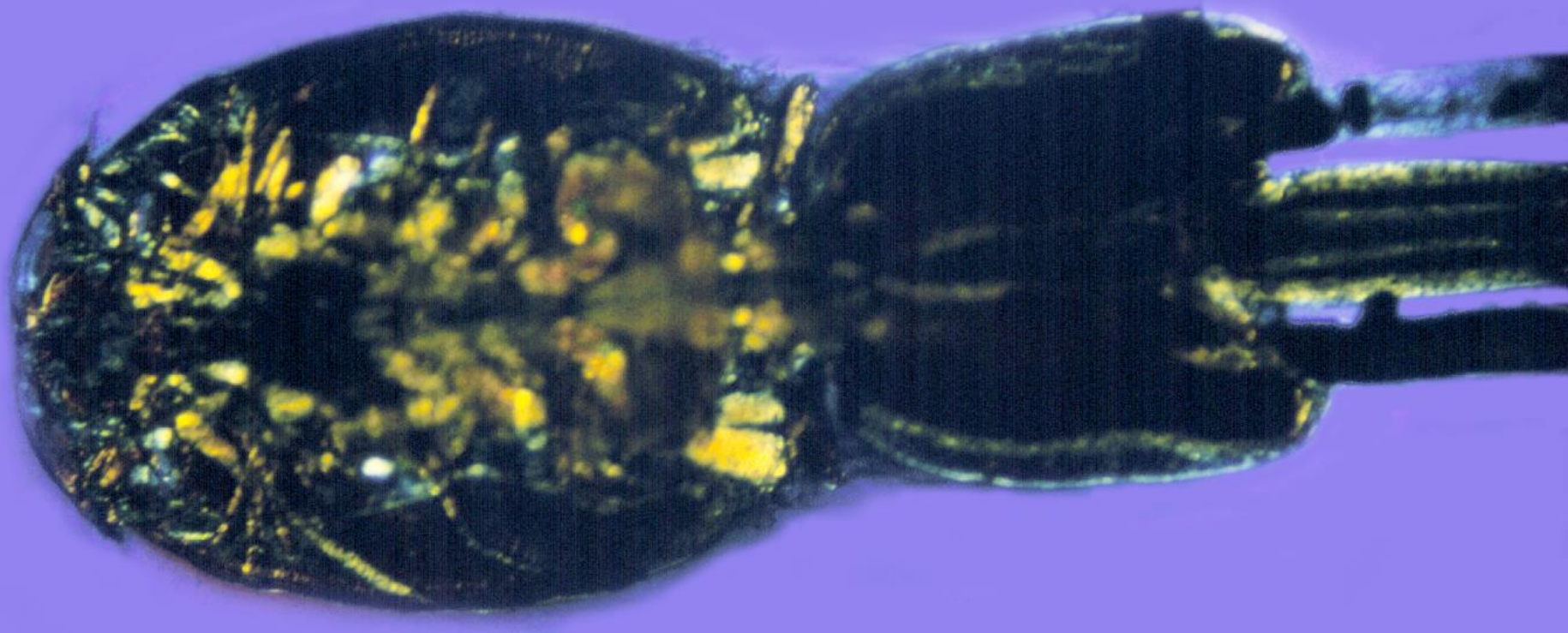
About 1000 farms

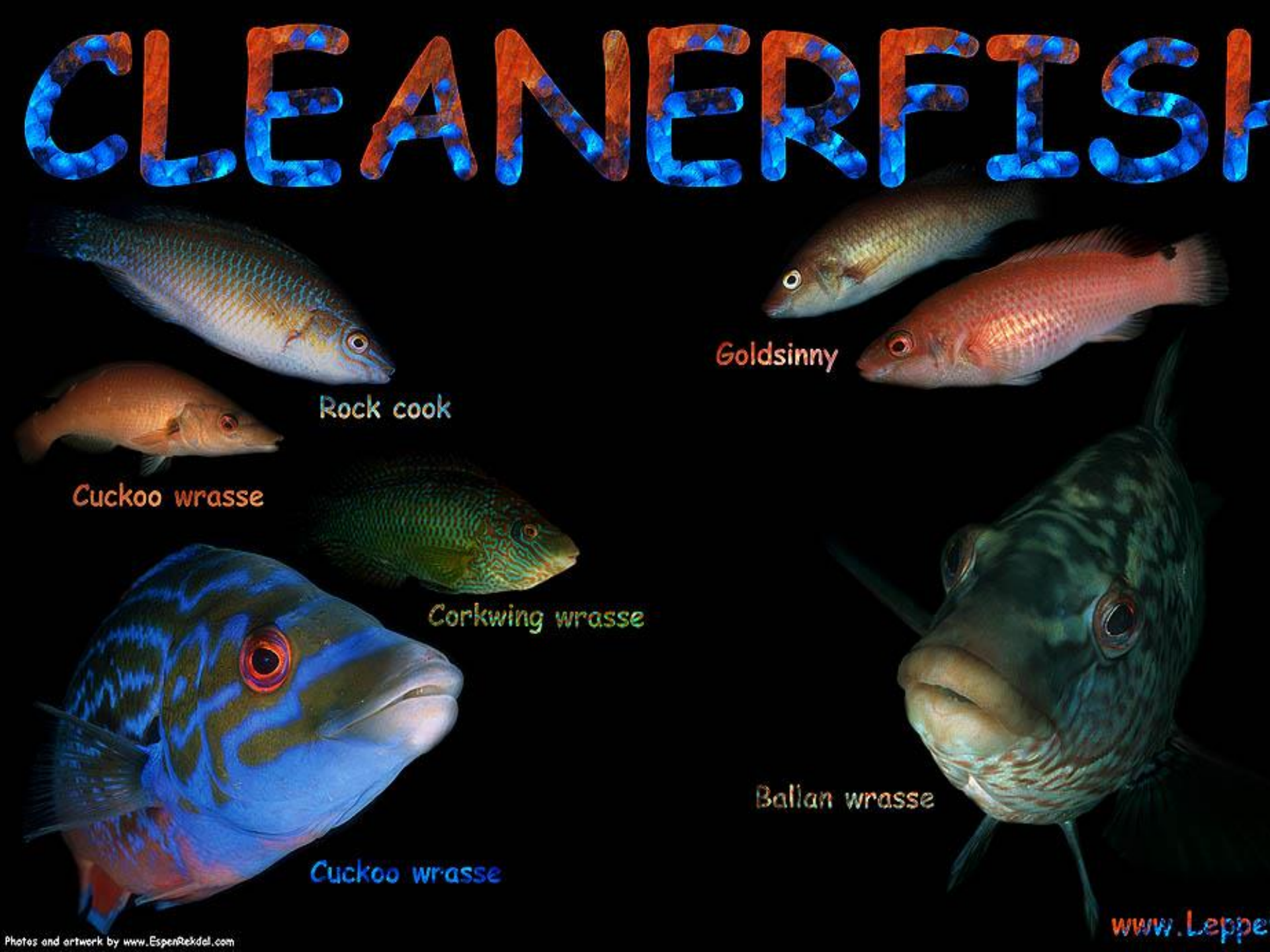
The salmon lice problem



Why use wrasses

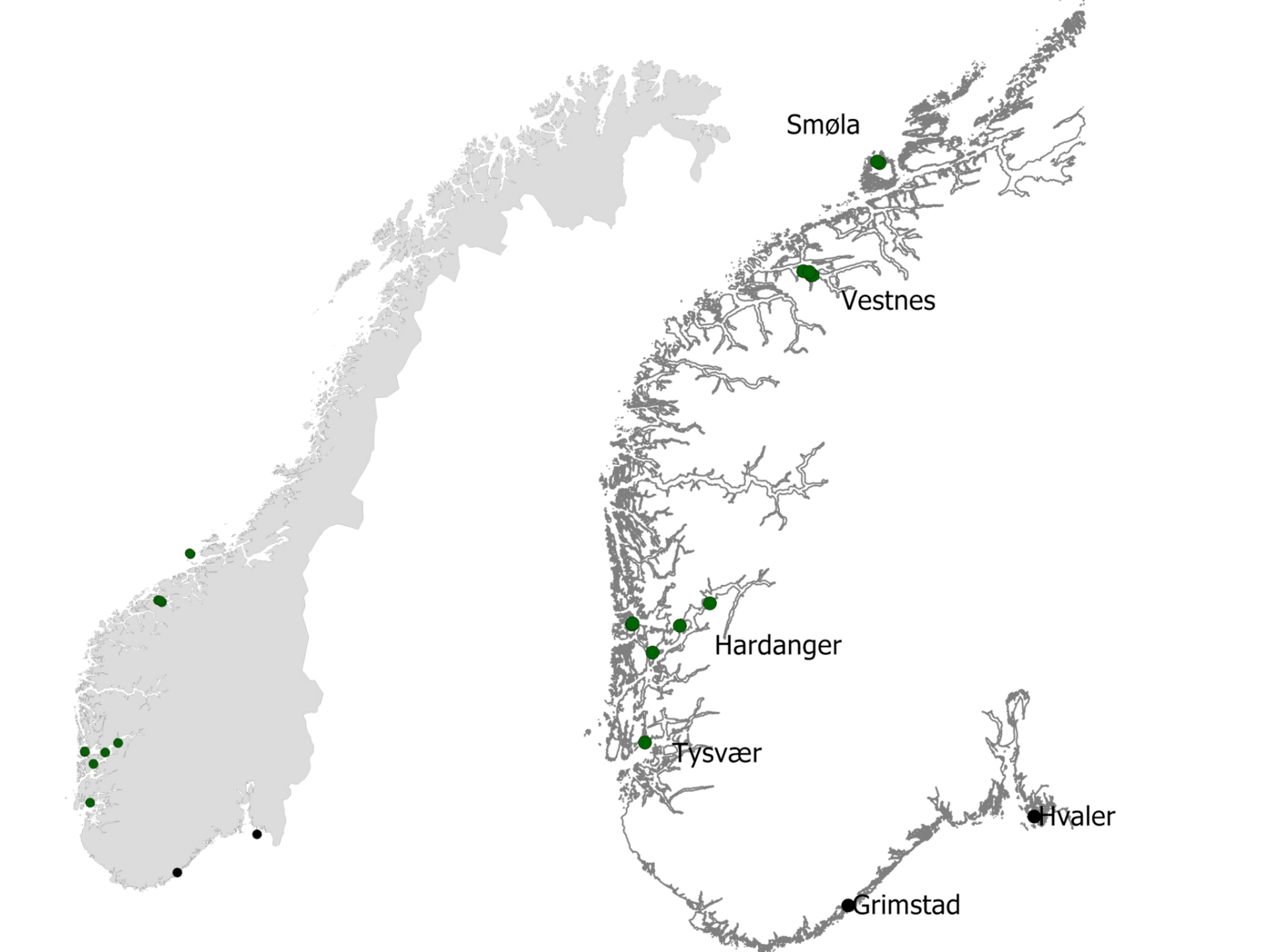
- Salmon lice cannot become resistant to cleanerfish
- Cleanerfish delouse continuously without the need to handle the salmon
- They are environmental friendly

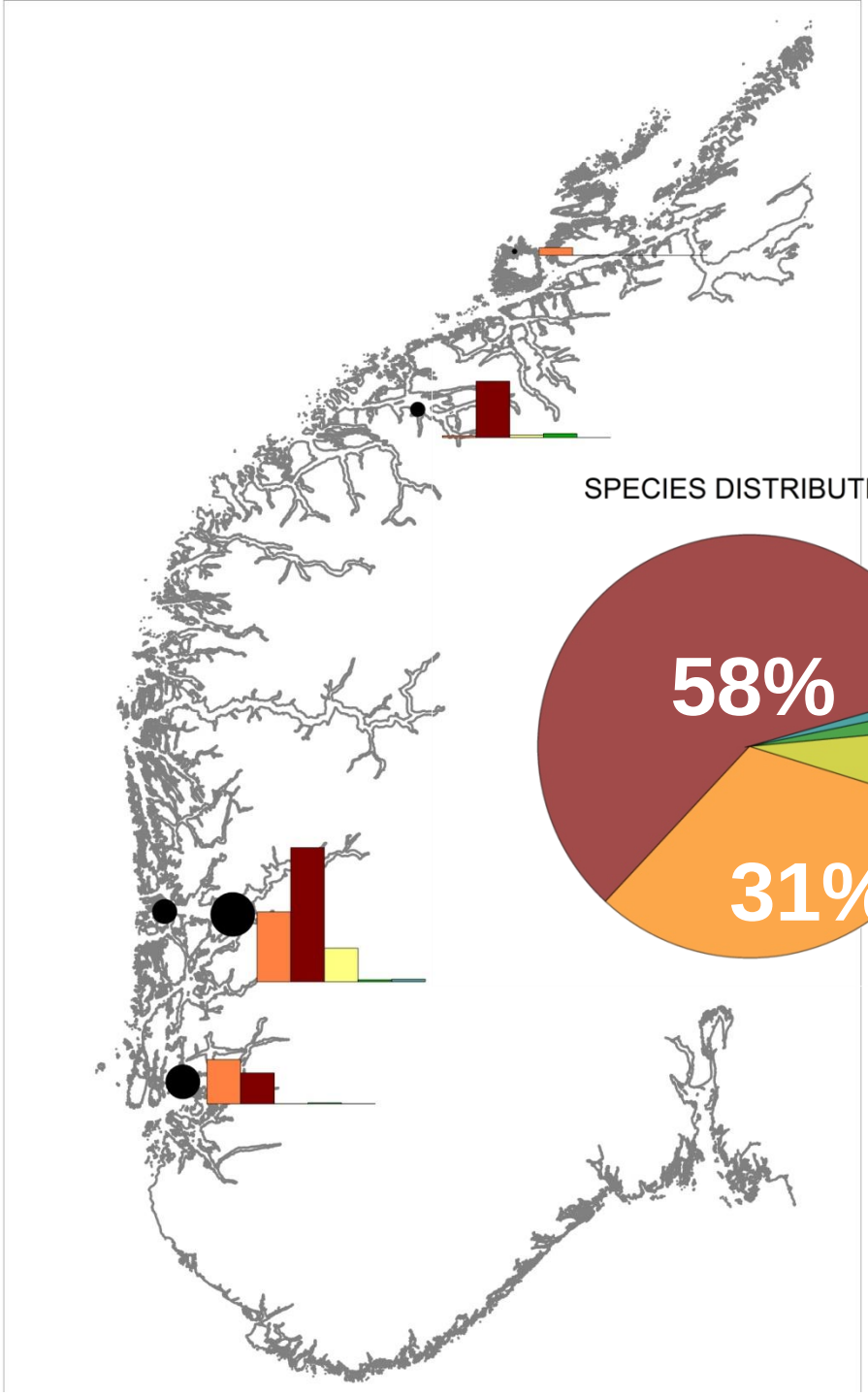
CLEANERFISH



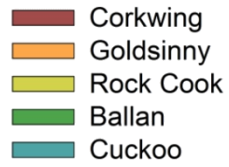
What do we need to know?

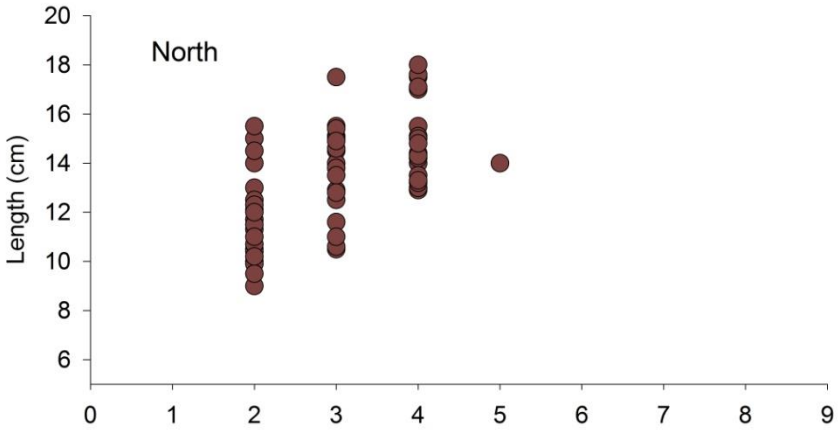
- Population sizes for the different wrasse species used and their distribution
- Growth and recruitment of each species
- Are there locally adapted populations?
- How will transporting wrasse affect their own pathogens?
- How to catch, handle, transport and maintain them in the best possible way

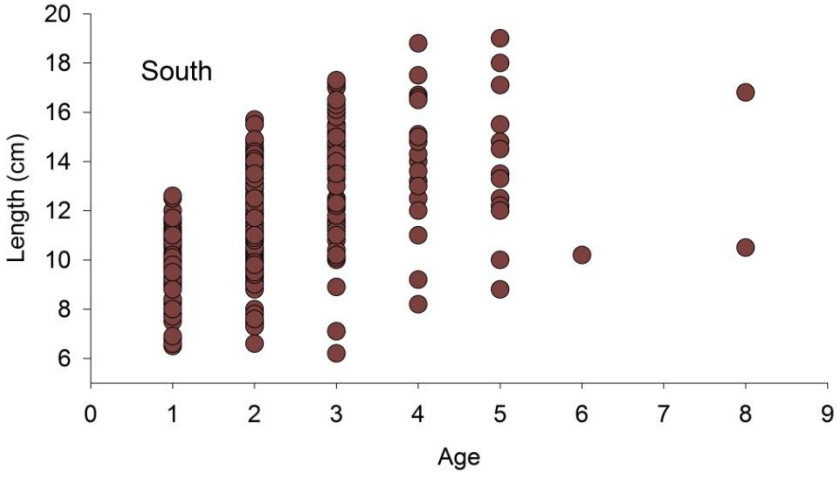

Smøla
Vestnes
Hardanger
Tysvær
Hvaler
Grimstad

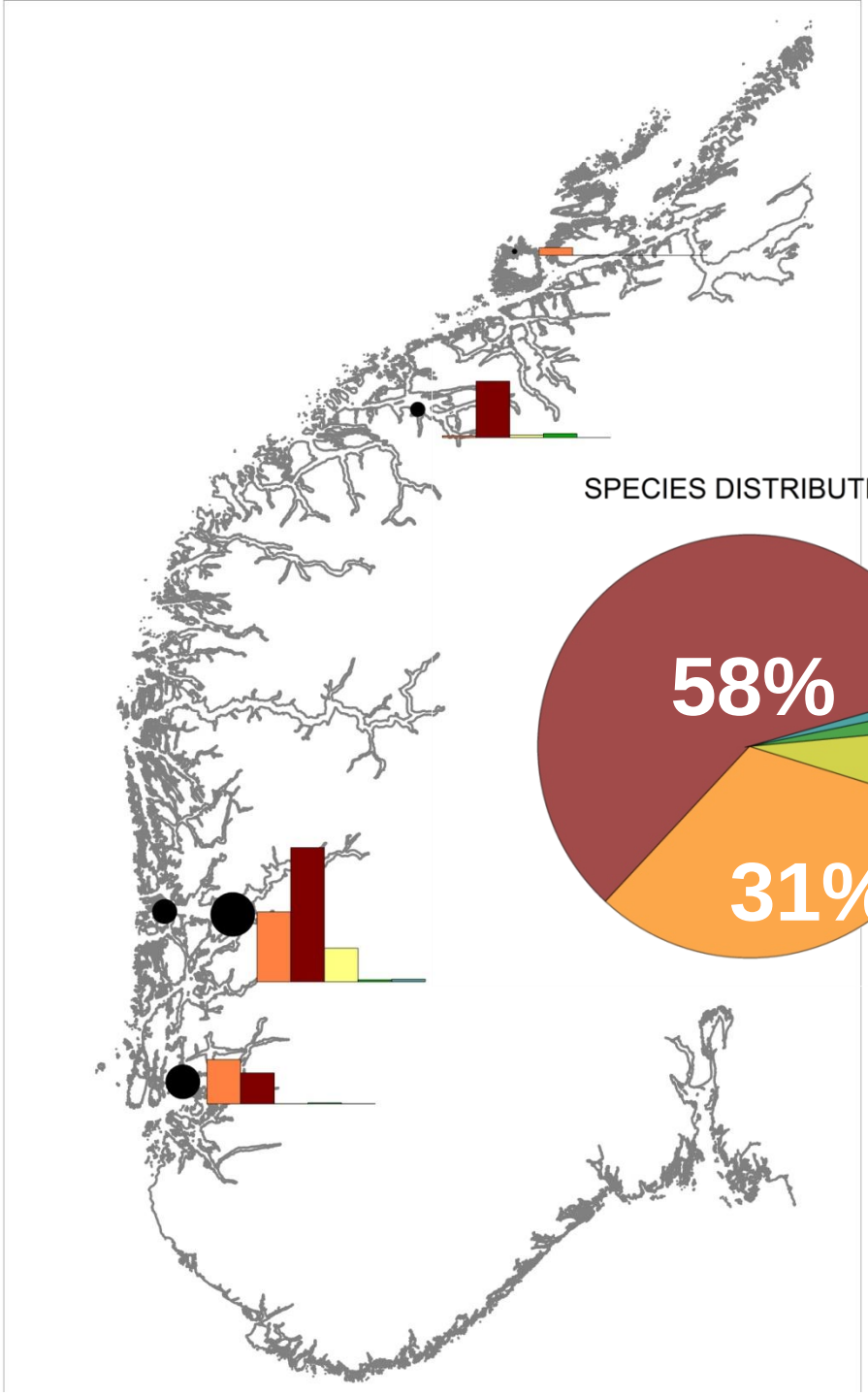


SPECIES DISTRIBUTION









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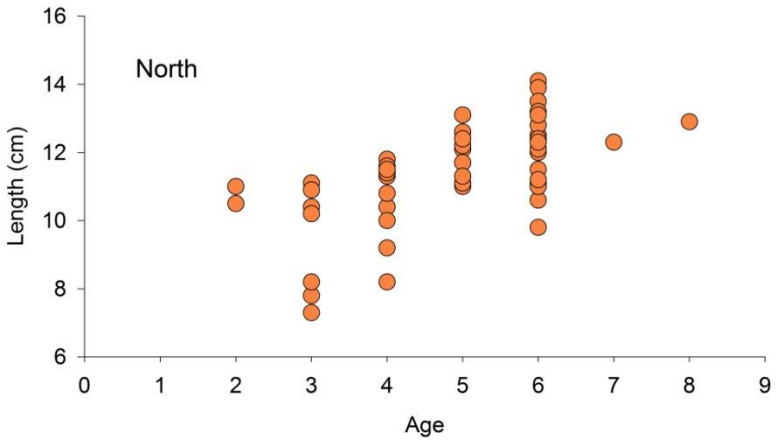
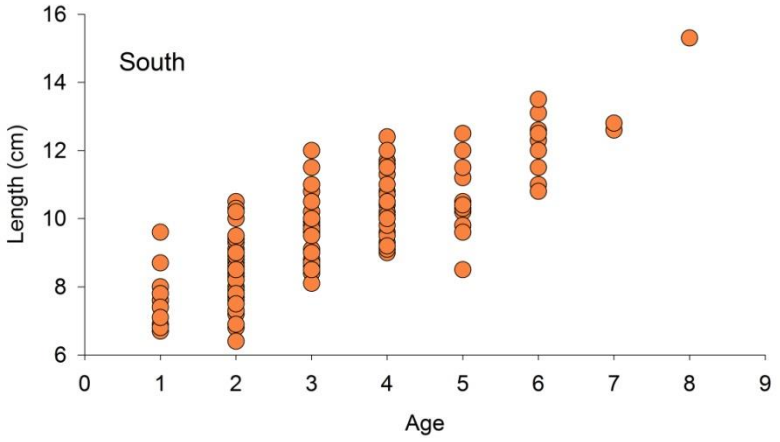
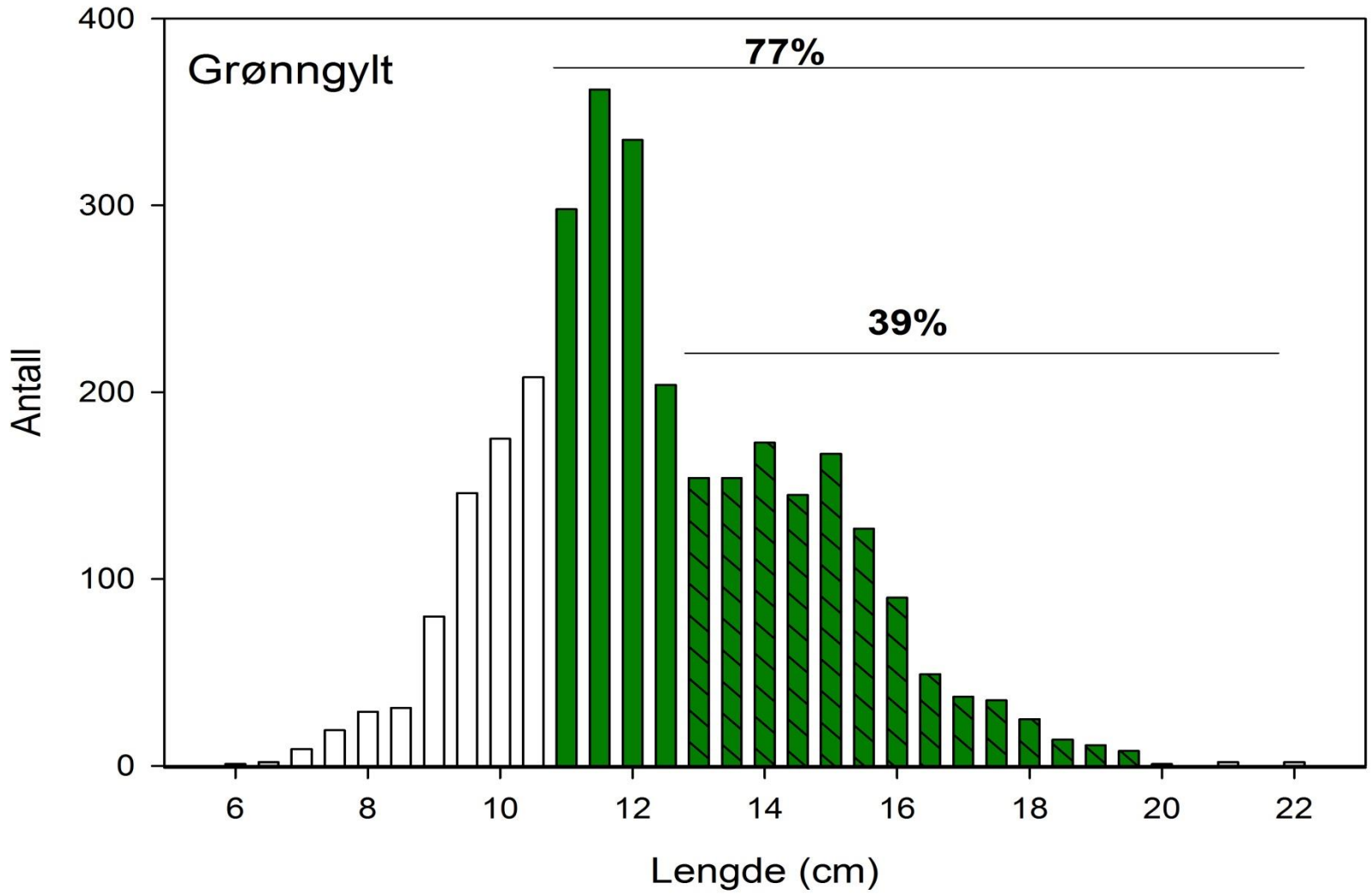
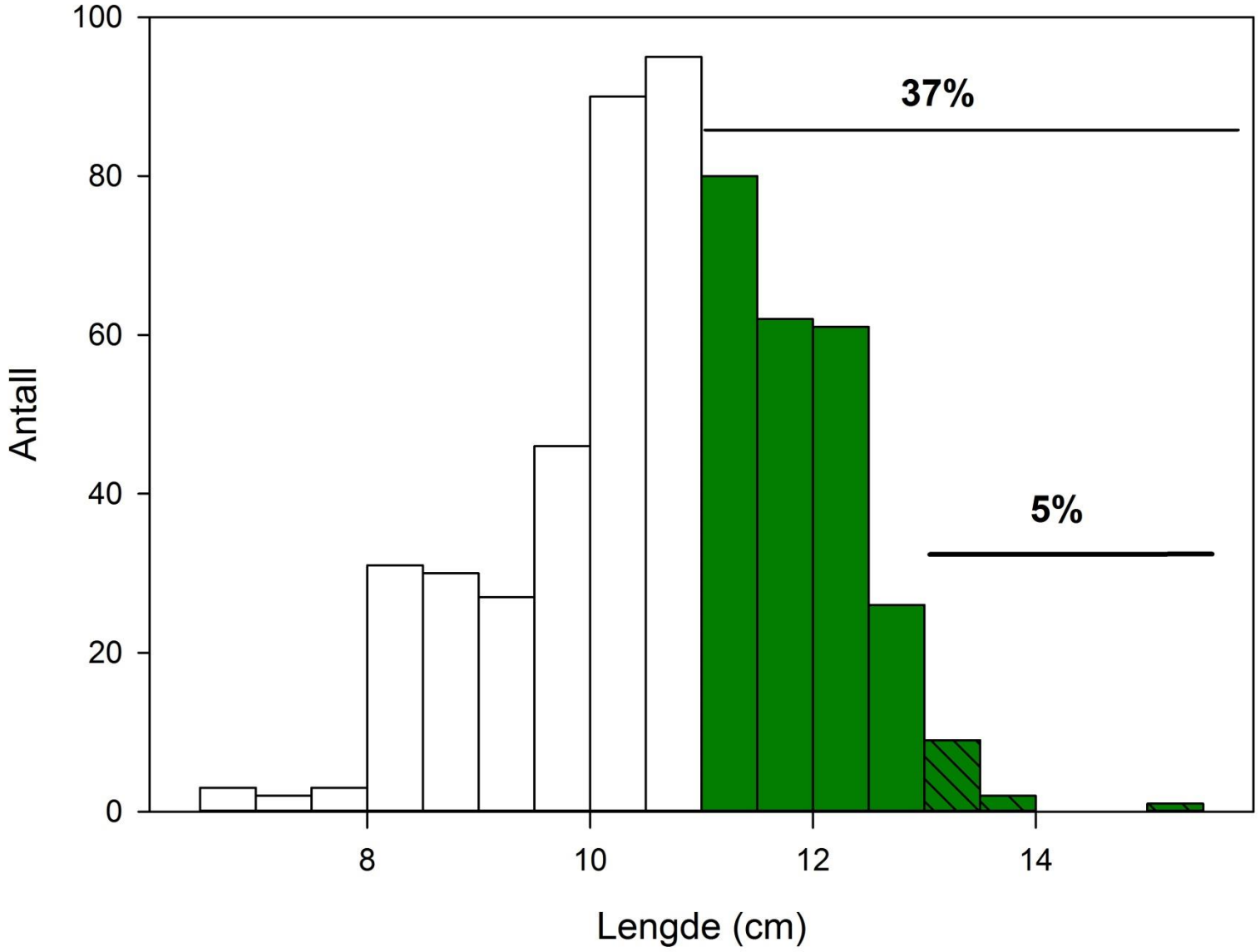




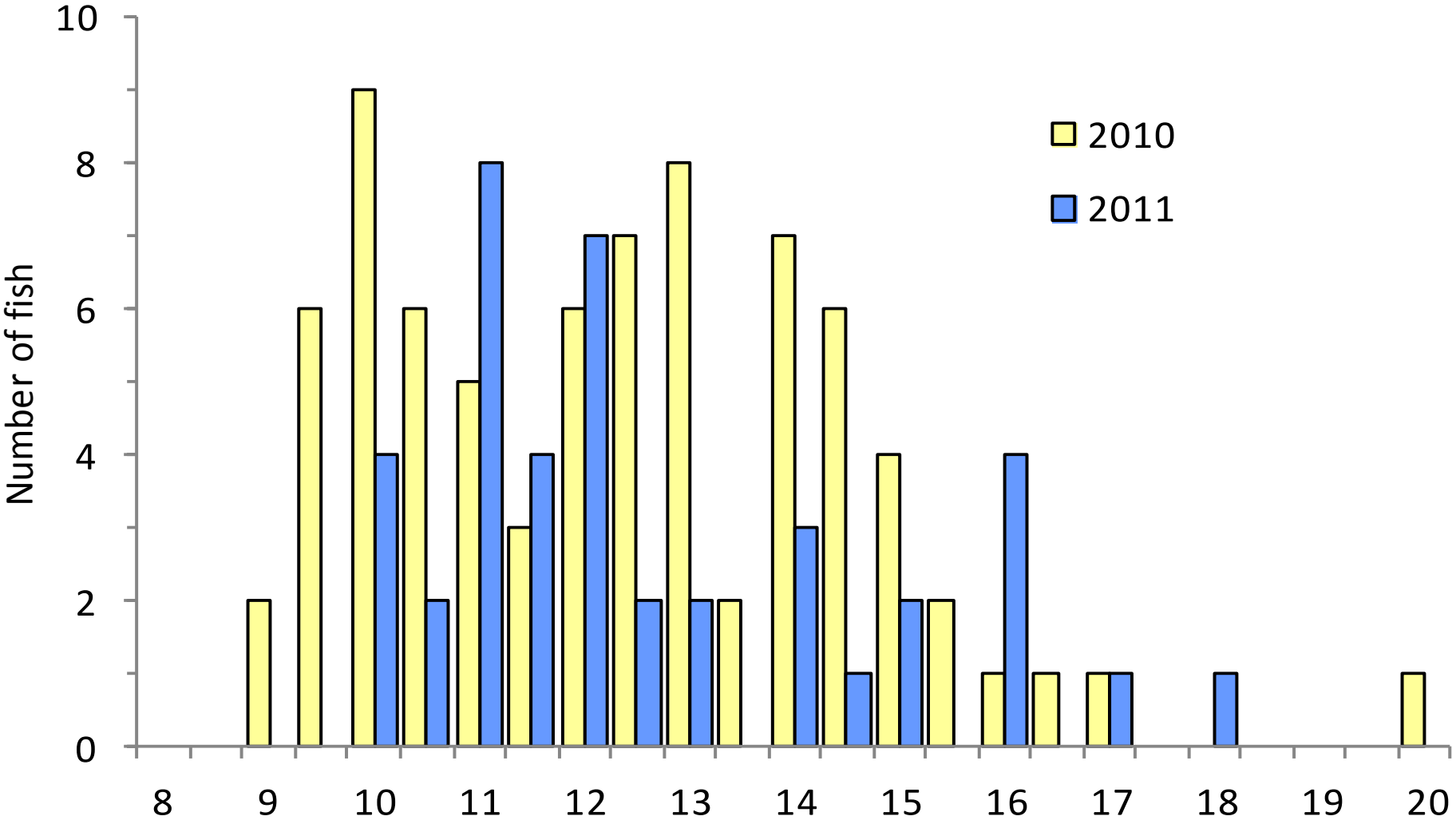
Corkwing


Grønngylt
77%
39%
Antall
400
300
200
100
0
6
8
10
12
14
16
18
20
22
Lengde (cm)

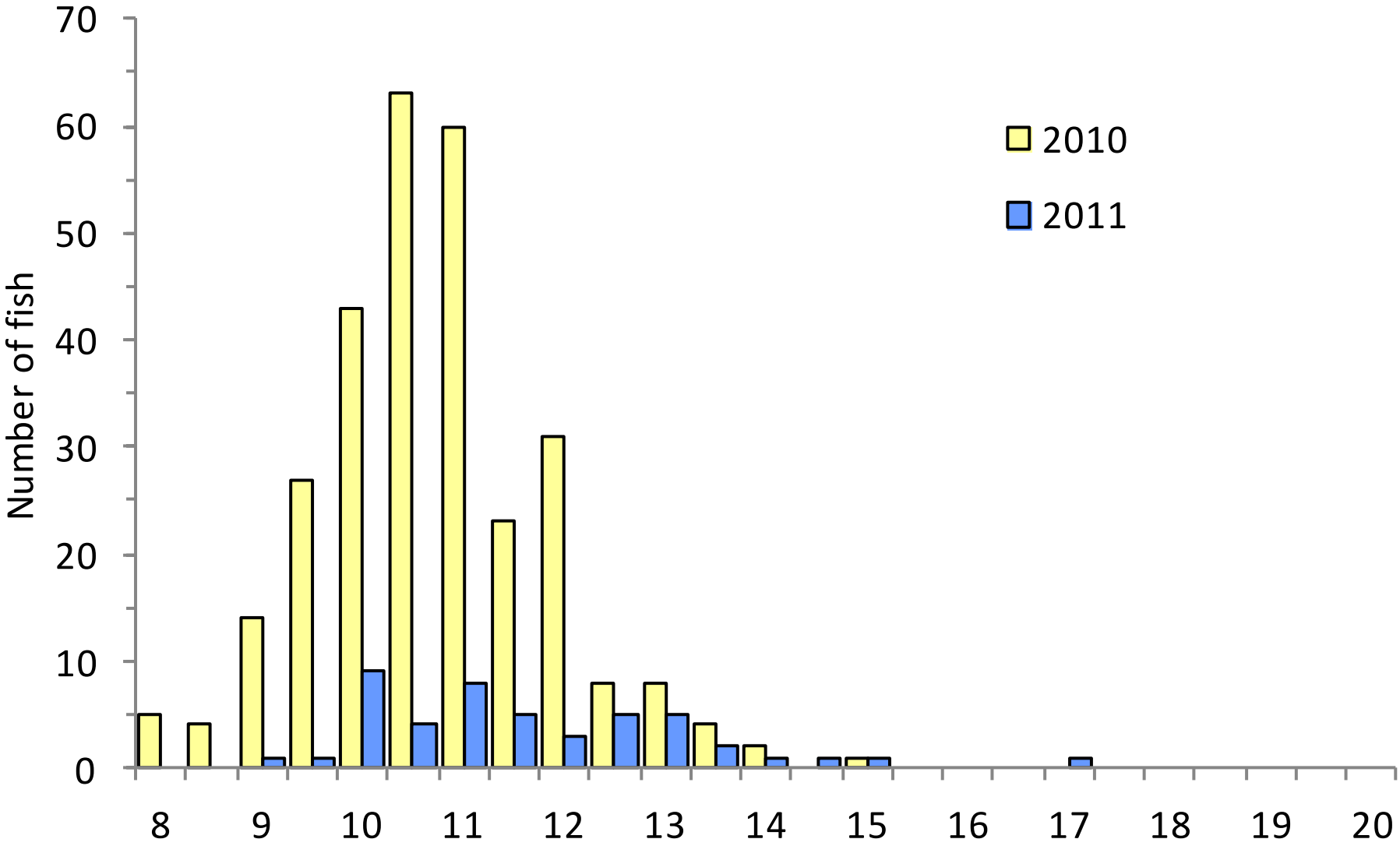
Goldsinny



Corkwing


Number of fish
10
8
6
4
2
0
8
9
10
11
12
13
14
15
16
17
18
19
20
2010
2011

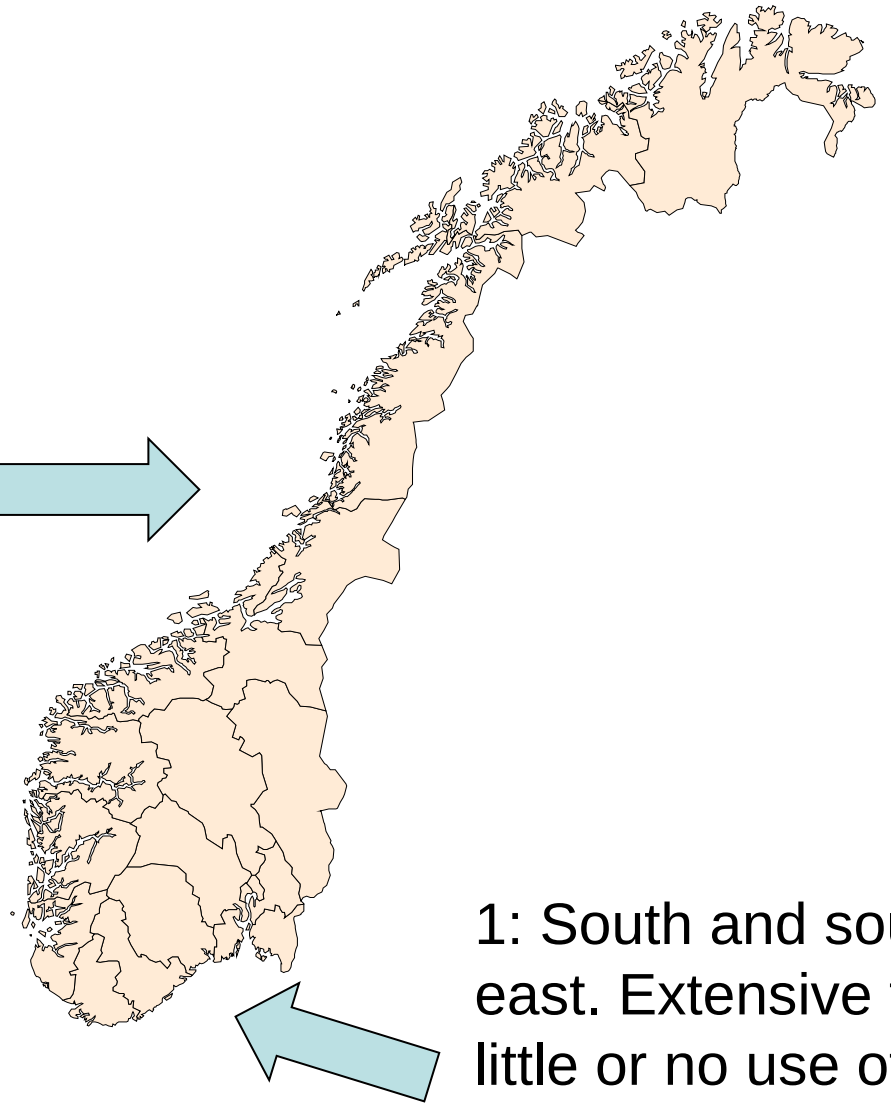
Goldsinny


70
60
50
40
30
20
10
0
Number of fish
2010
2011
8
9
10
11
12
13
14
15
16
17
18
19
20

Three scenarios

3: Mid- and northern Norway. Less wrasse available – need to ”import ” wrasse

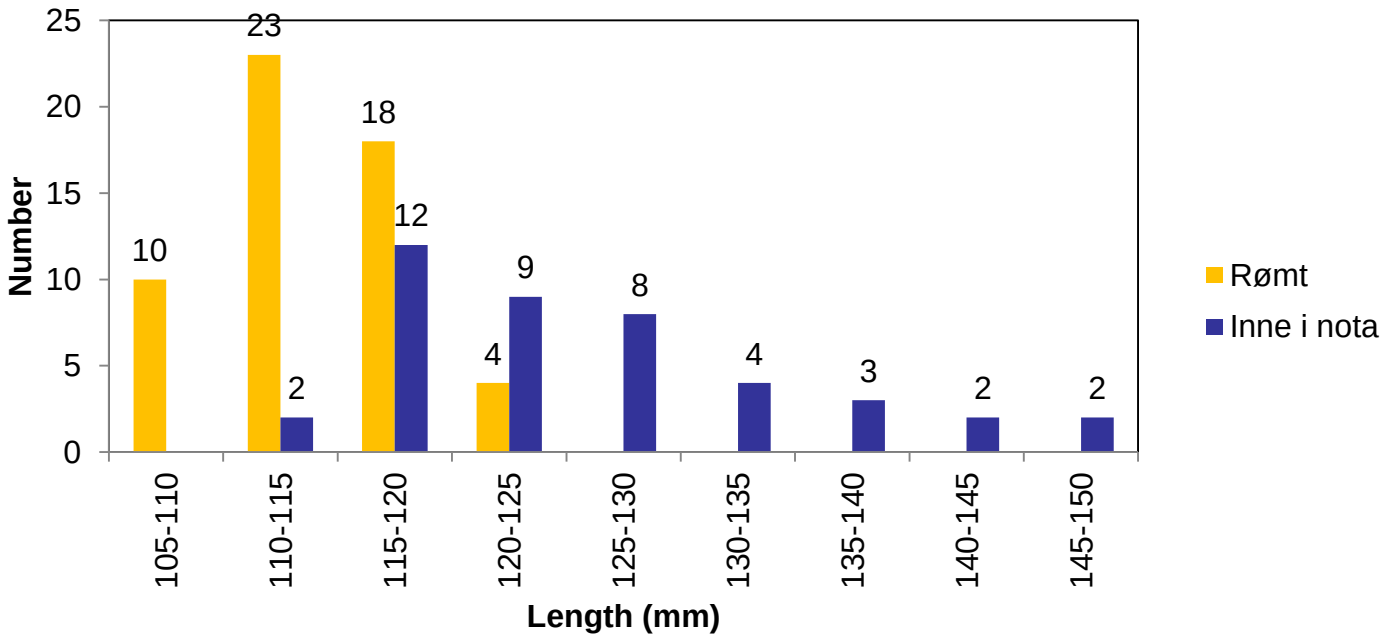
2: West coast. Extensive fishery and use. May be self supplied



1: South and south-east. Extensive fishery, little or no use of wrasse. Need to ”export”

Escapes through commercial seacage nets

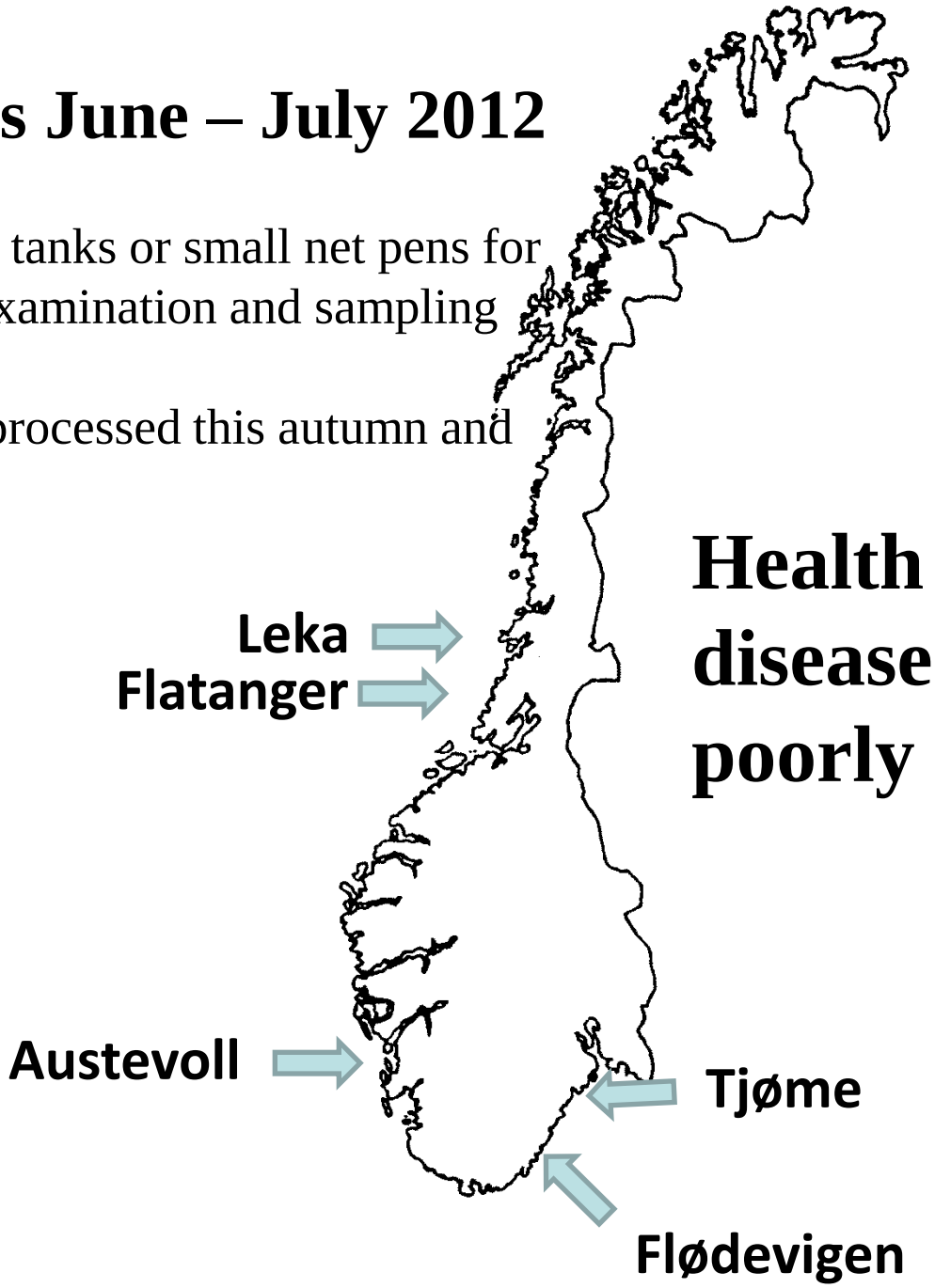
23 june 2012
- 97 goldsinny
- 55% escaped
- k-factor mean 1,3



Sample points June – July 2012

Local catch, kept in tanks or small net pens for two weeks before examination and sampling

Samples are being processed this autumn and winter



Health status and diseases are poorly known

Optimizing traps to minimize by-catch and maximize quality

Most corkwing die shortly after release in net pens if collected during the spawning season

Responsible use of wrasses

- Modified traps to avoid bycatch
- Right size
- Right time
- Hiding places for wrasse
- Locally caught wrasses

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