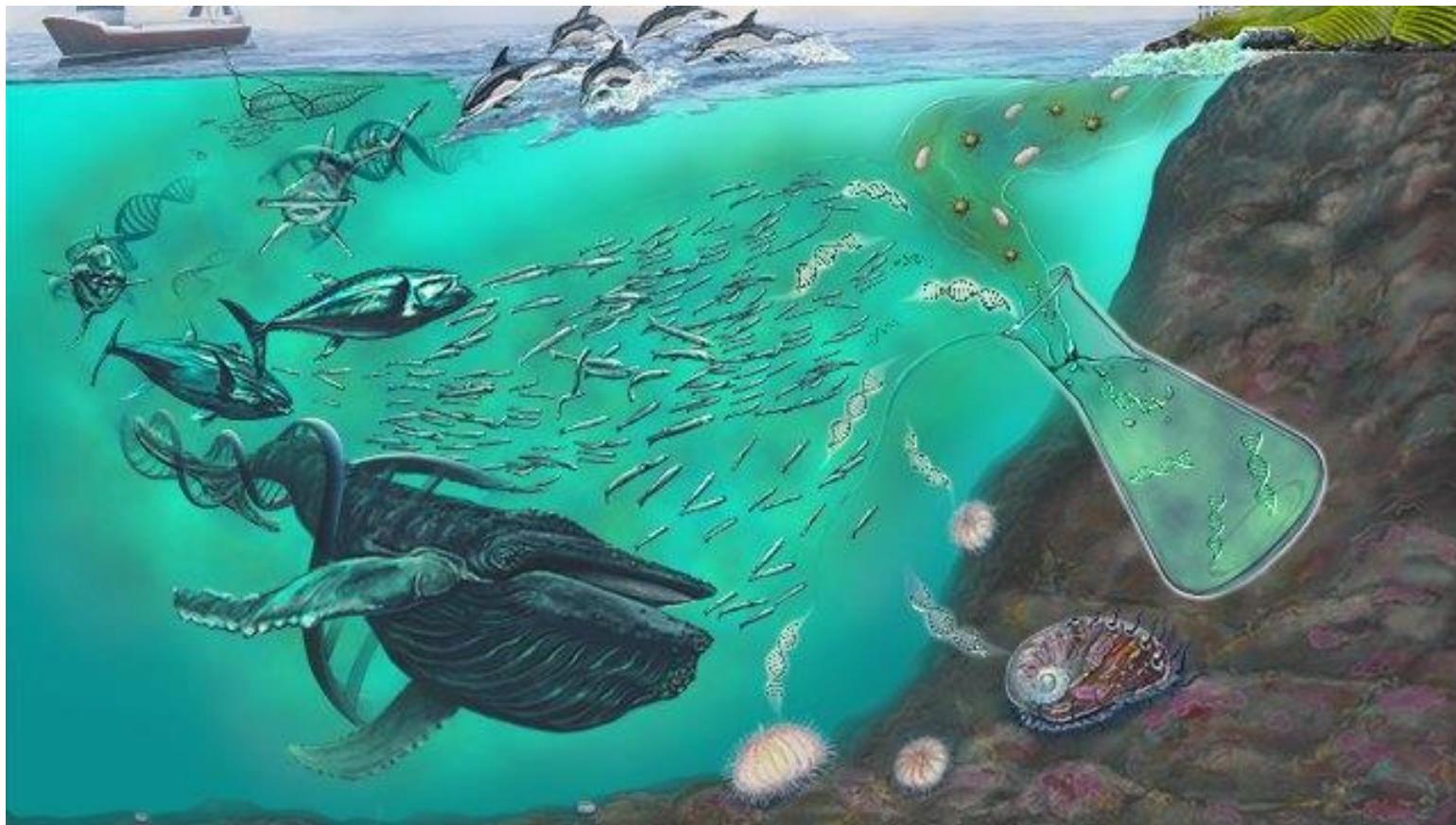


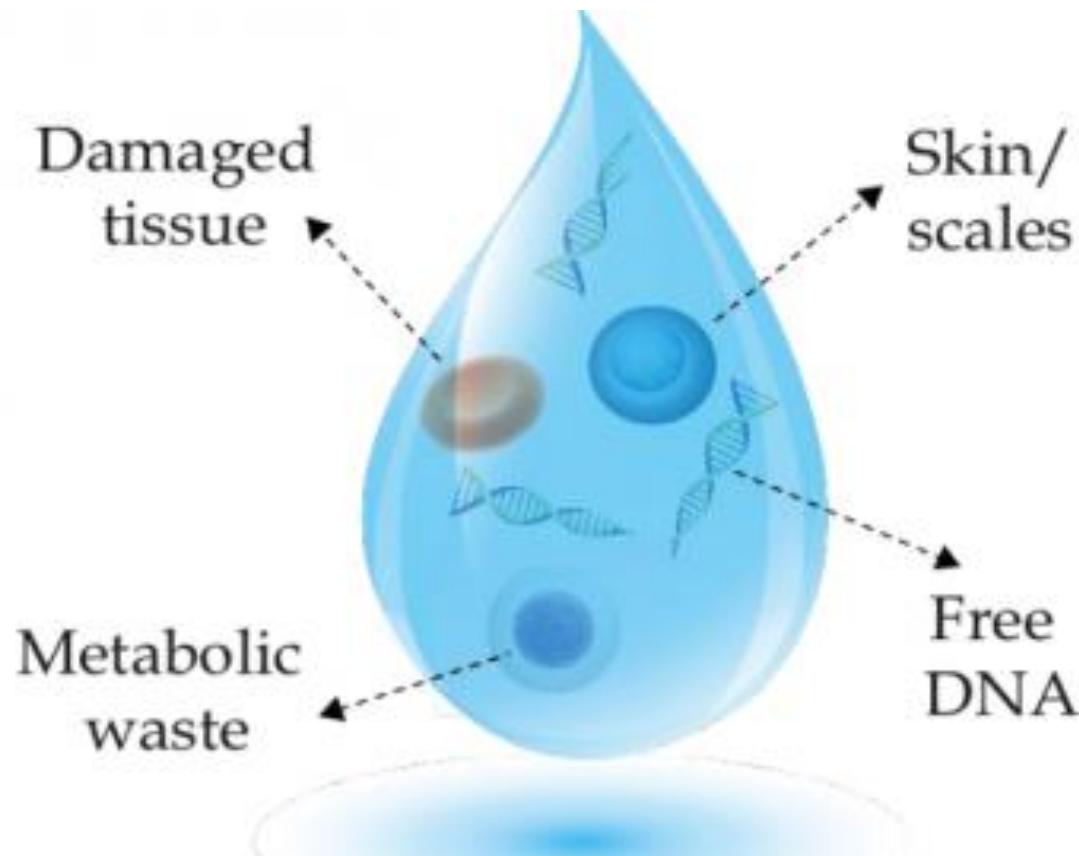
# DNA-dyrging – ein øðrvísi kanning av vistskipanini



Ian Salter, Havstovan

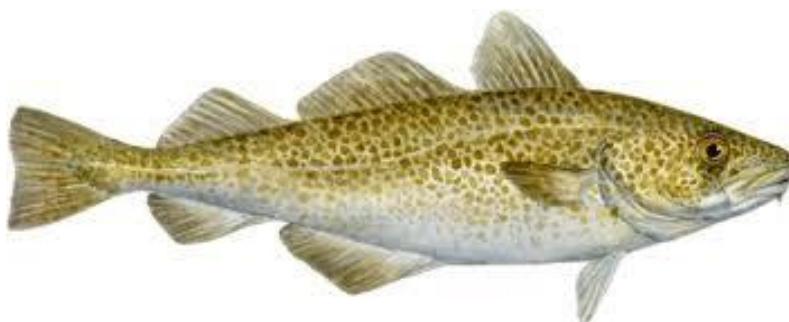
Petur Steingrund frá Havstovuni helt framløguna

# Hvat er umhvørvis-DNA (eDNA)?

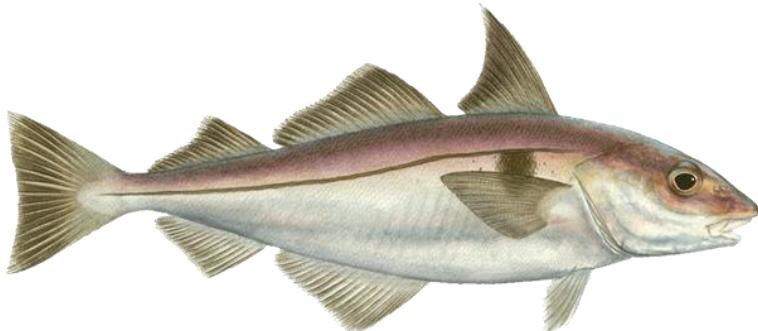
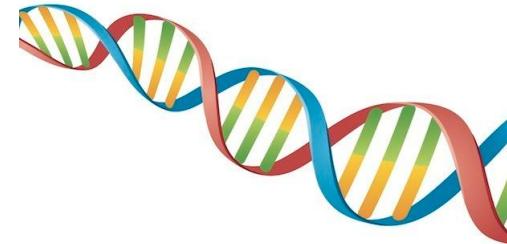


Sources of eDNA in a drop of seawater.

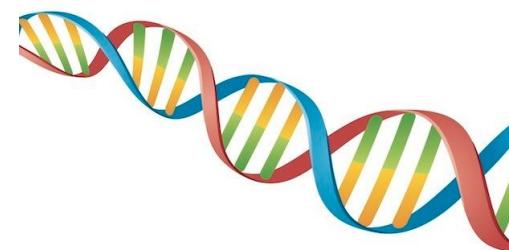
# Hvat er eDNA?



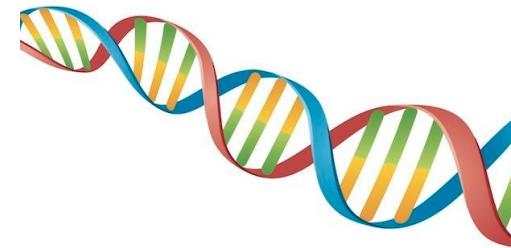
AACCTTGACGTAGTAGCAGTGGTACGA



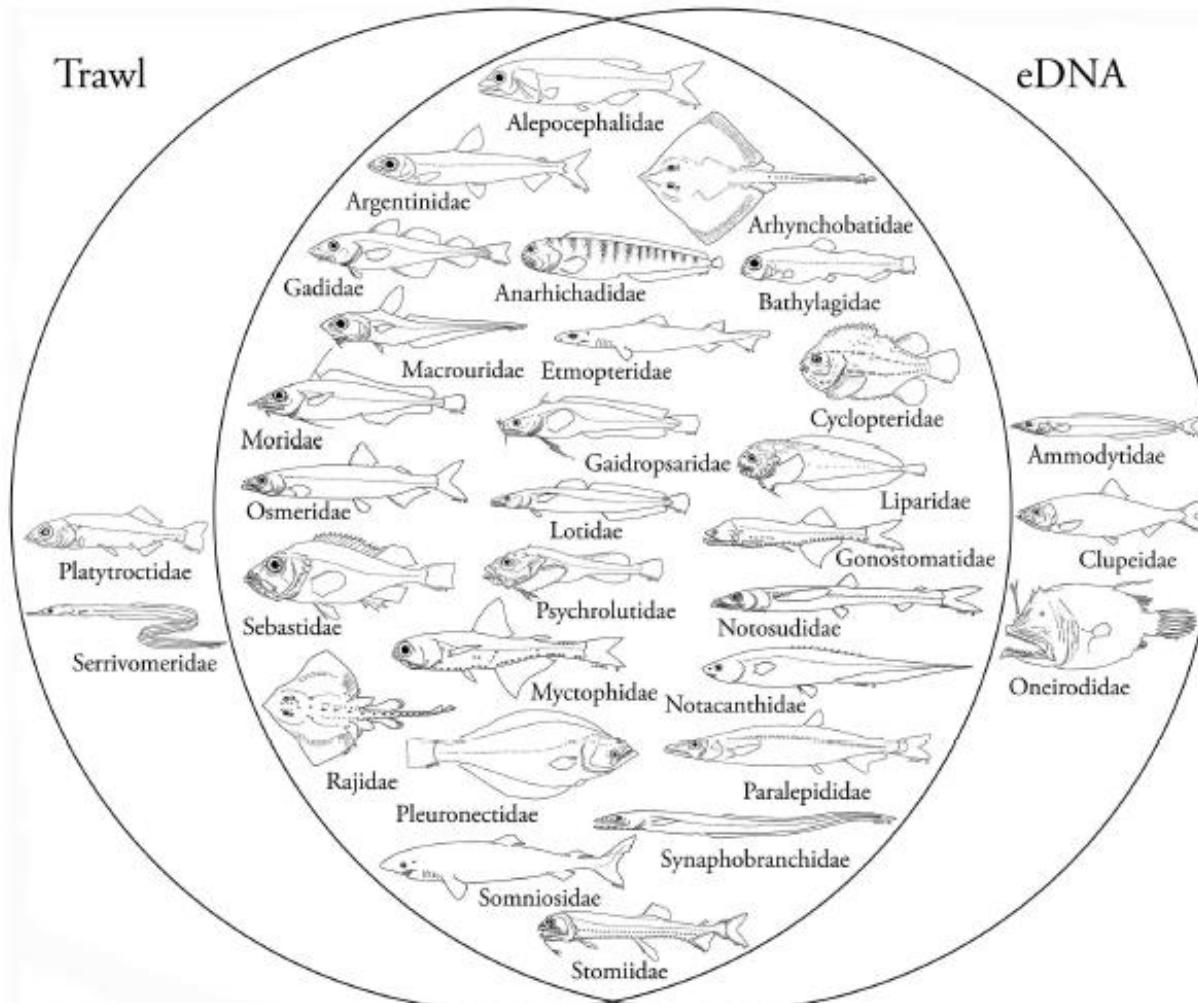
GACGTTAGCCAGGTAGGCAGGTAGGACG



CGTATATGTTATTGCAACGTATTACGTATA

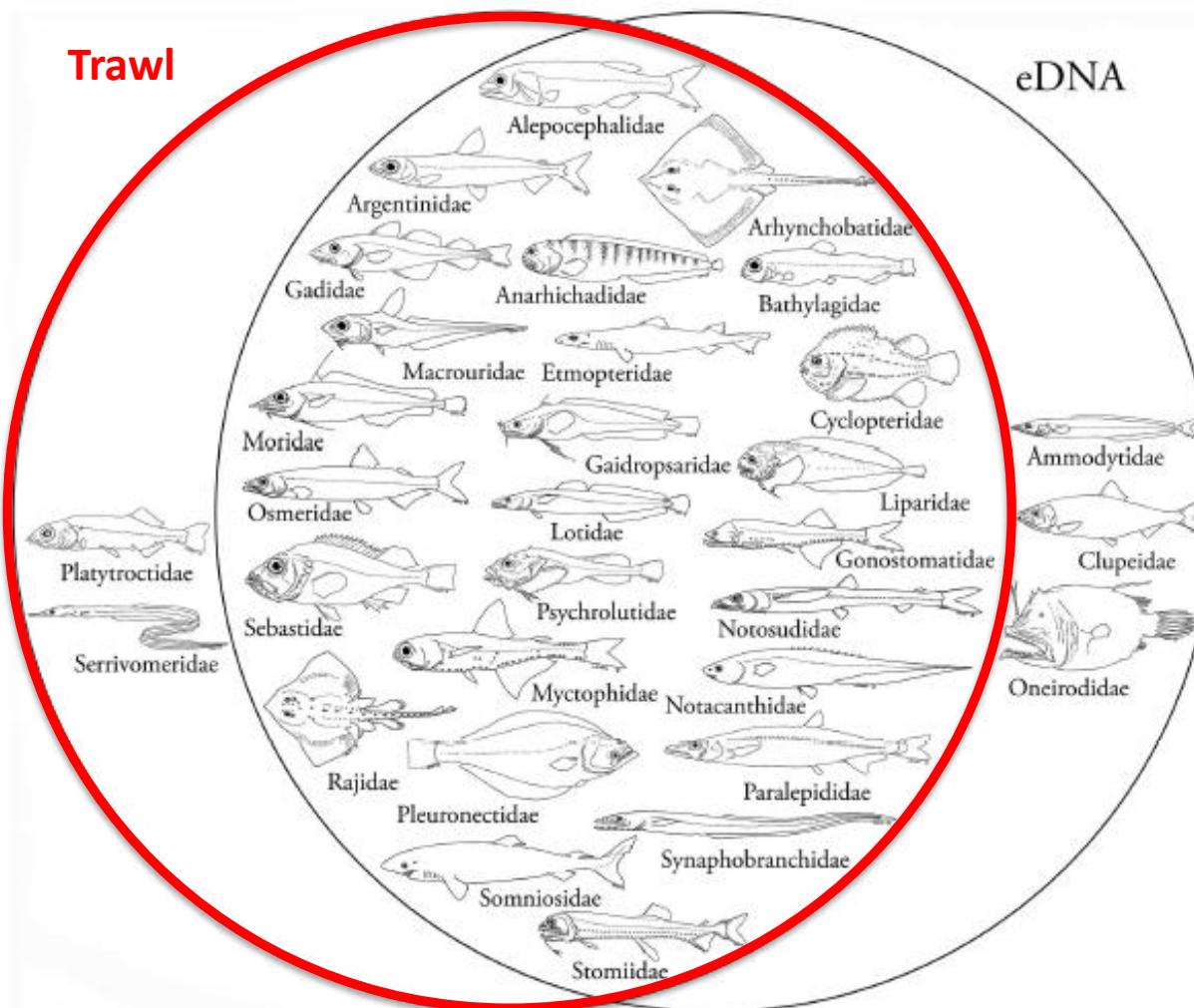


# Fiskalisti frá eDNA



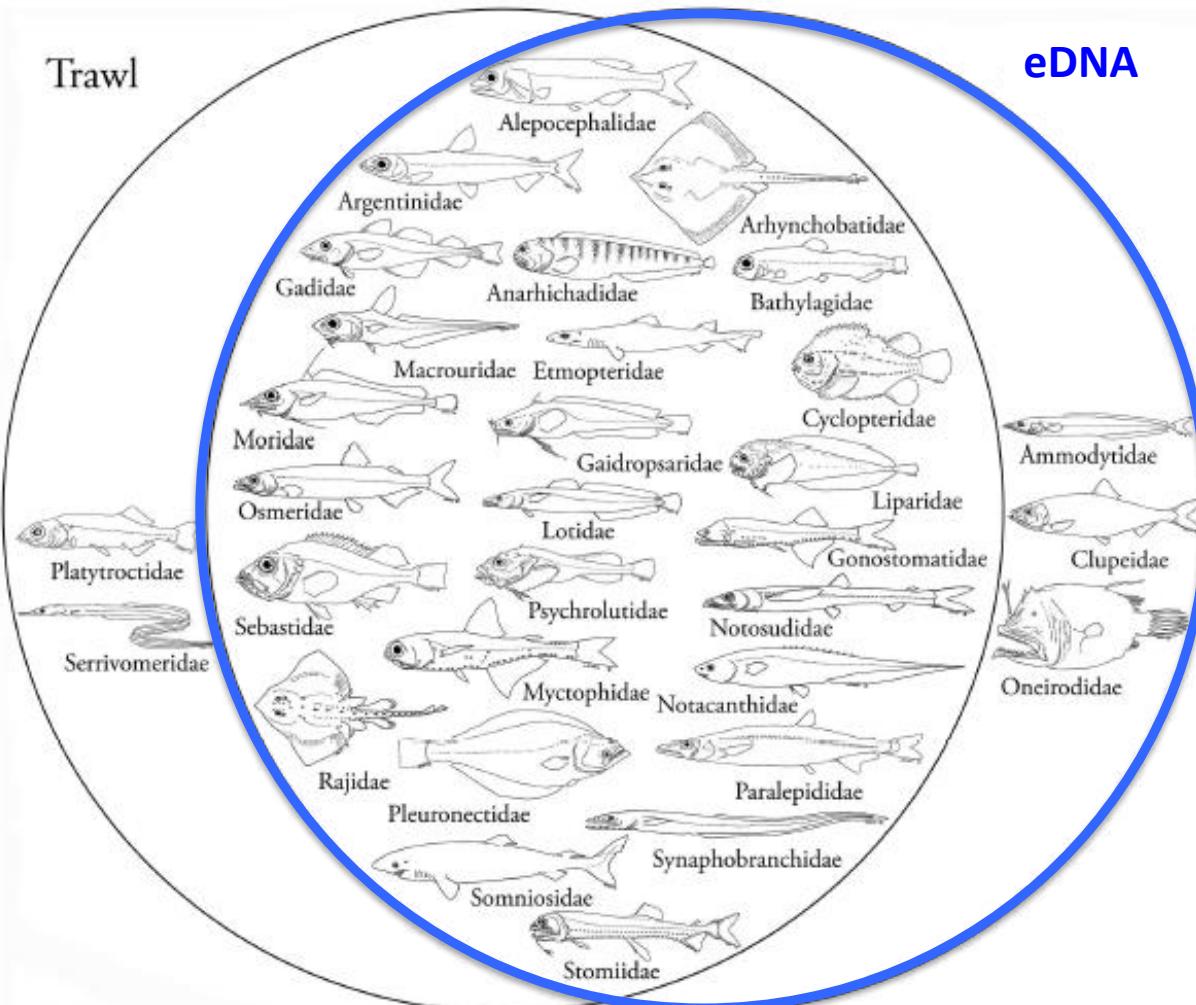
Thomsen et al. 2016

# Fiskalisti frá eDNA



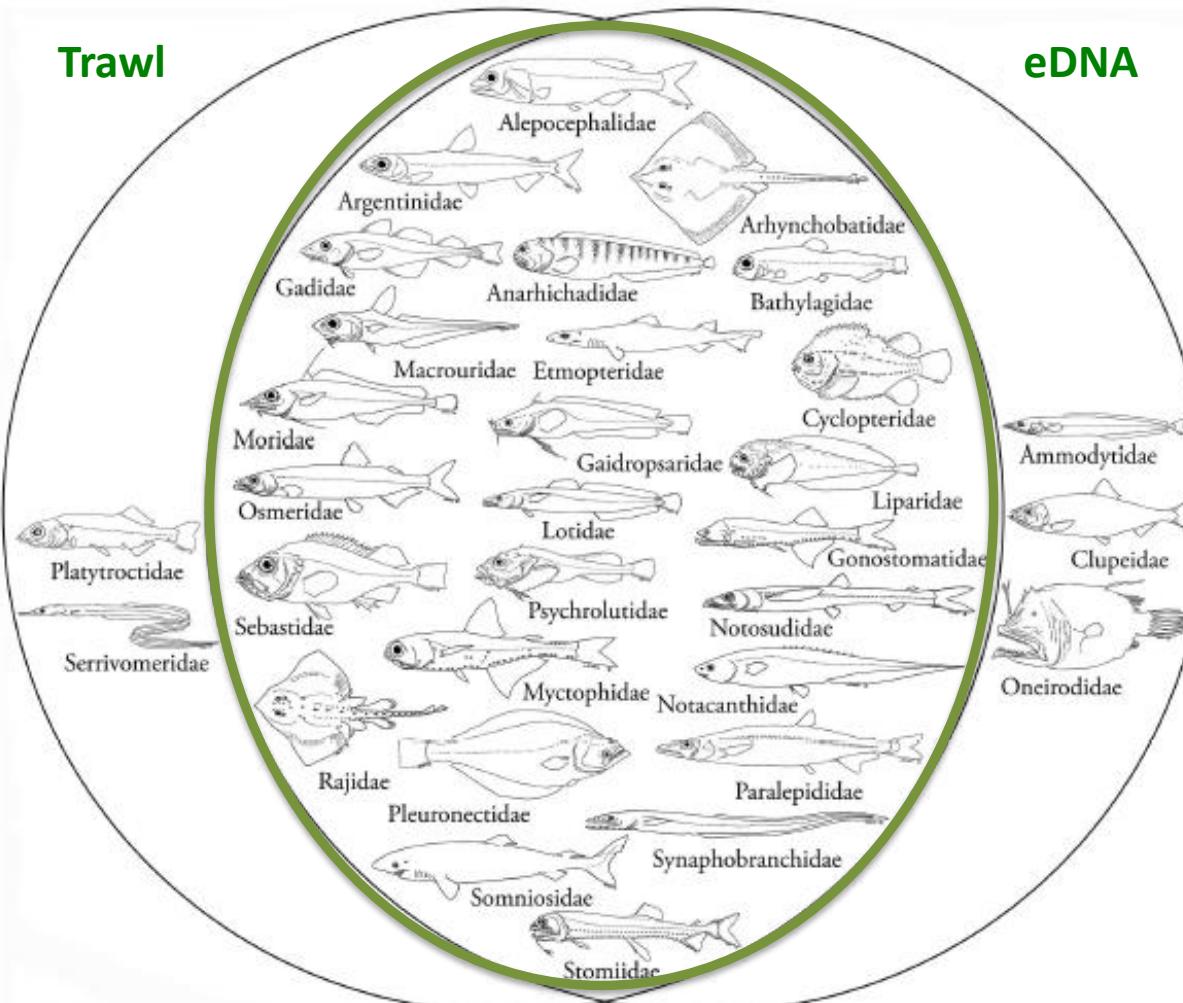
Thomsen et al. 2016

# Fiskalisti frá eDNA



Thomsen et al. 2016

# Fiskalisti frá eDNA

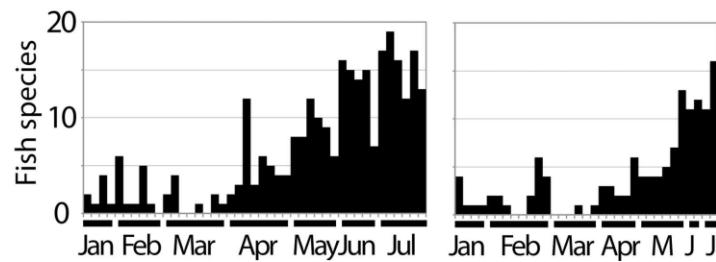
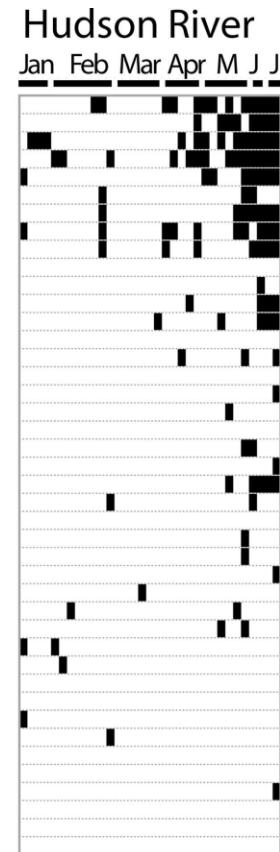
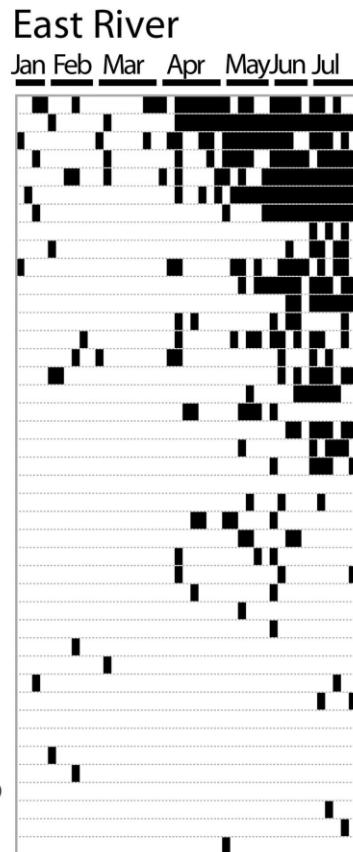


26 av 28

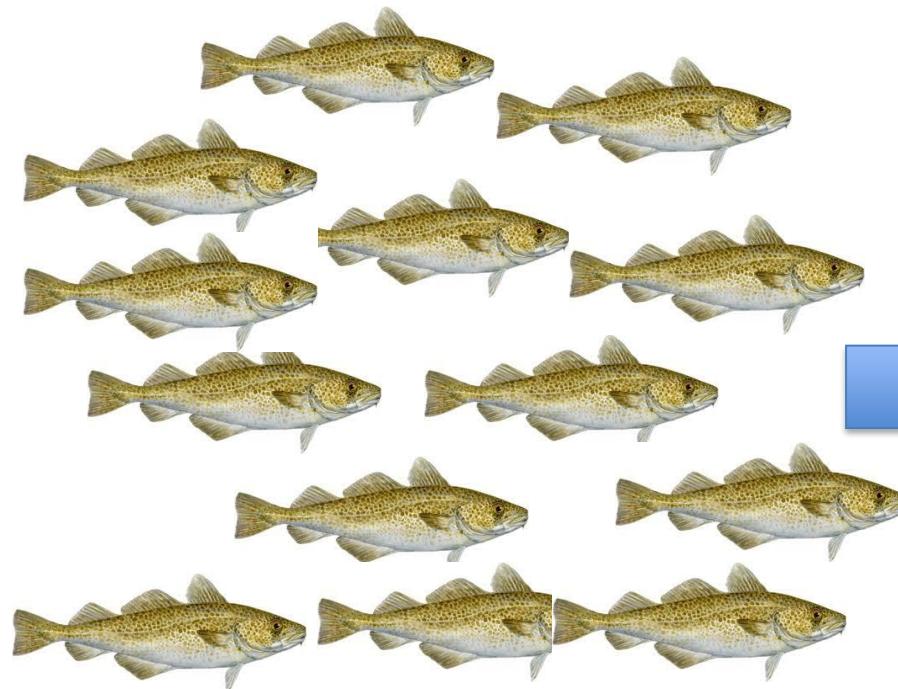
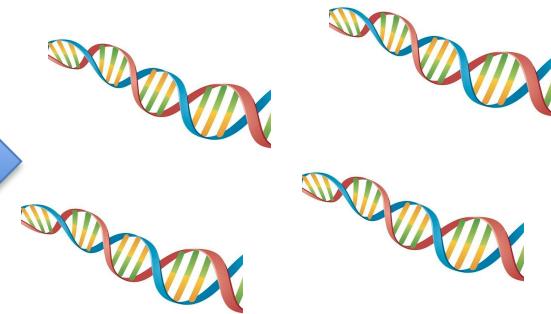
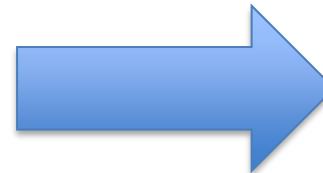
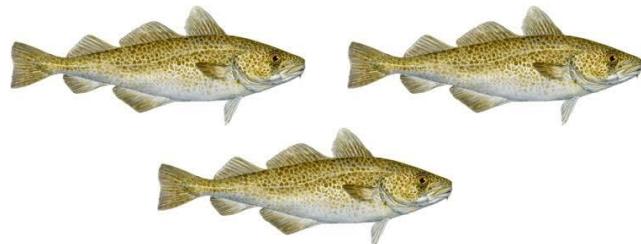
>90%  
staðfest  
rætt

# Fiskalisti frá eDNA

Atlantic menhaden  
Tautog  
Herring (Clupeidae sp) (M)  
Striped bass  
Oyster toadfish  
Cunner  
Bay anchovy  
Naked goby  
American eel  
Rock gunnel  
Seaboard goby  
Black sea bass  
White perch  
Atlantic silverside  
Winter flounder  
Scup  
Northern pipefish  
Windowpane flounder  
Weakfish  
Bluefish  
Striped sea robin  
Hogchoker  
Tomcod  
Hake (*Urophycis* sp) (M)  
American butterfish  
Sea robin (Triglidae sp)  
Mummichog  
Sculpin (Cottidae sp)  
Summer flounder  
Atlantic sturgeon  
Drum (Sciaenidae sp)  
Atlantic herring  
Conger eel  
Northern puffer  
Spot  
Gizzard shad  
Spanish mackerel  
Three spined stickleback  
Angelfish (*Pomacanthidae* sp)  
Smallmouth flounder  
Northern kingfish  
Atlantic mackerel



# Hvussu við nøgd (biomassa)?



# Toska-eDNA: Mál

1. Menna ein hátt at máta nøgdina av toska eDNA í sjógví
2. Samanbera nøgdina av toska eDNA  
við trolveiðu av toski undir Føroyum

# Toska-eDNA: Mál

1. Menna ein hátt av máta nøgdina av toska-eDNA í sjógví
2. Samanbera nøgdina av toska eDNA  
við trolveiðu av toski undir Føroyum

# Kann skilja tosk frá øðrum fiskaslögum



Toskur  
(*Gadus morhua*)



Hýsa  
(*Melanogrammus aeglefinus*)



Upsi  
(*Pollachius virens*)



Hvítungur  
(*Merlangius merlangus*)



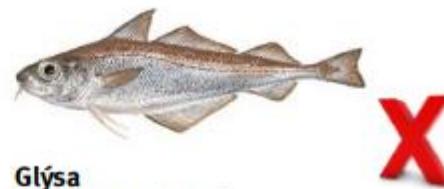
Hvítingsbróðir  
(*Trisopterus esmarkii*)



Svartkjaftur  
(*Micromesistius poutassou*)

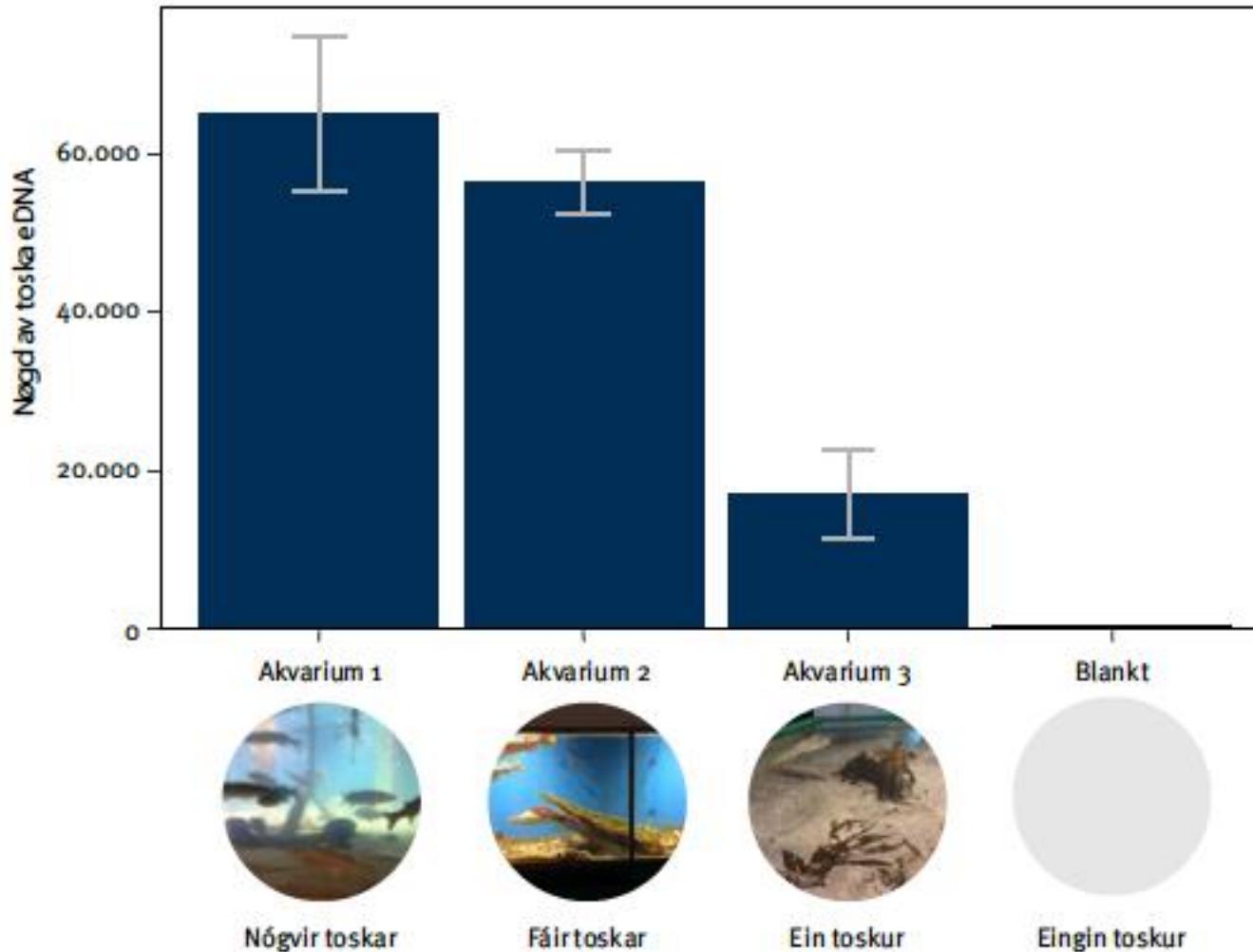


Silvurmurtur  
(*Gadiculus argenteus thori*)



Glýsa  
(*Trisopterus minutus*)

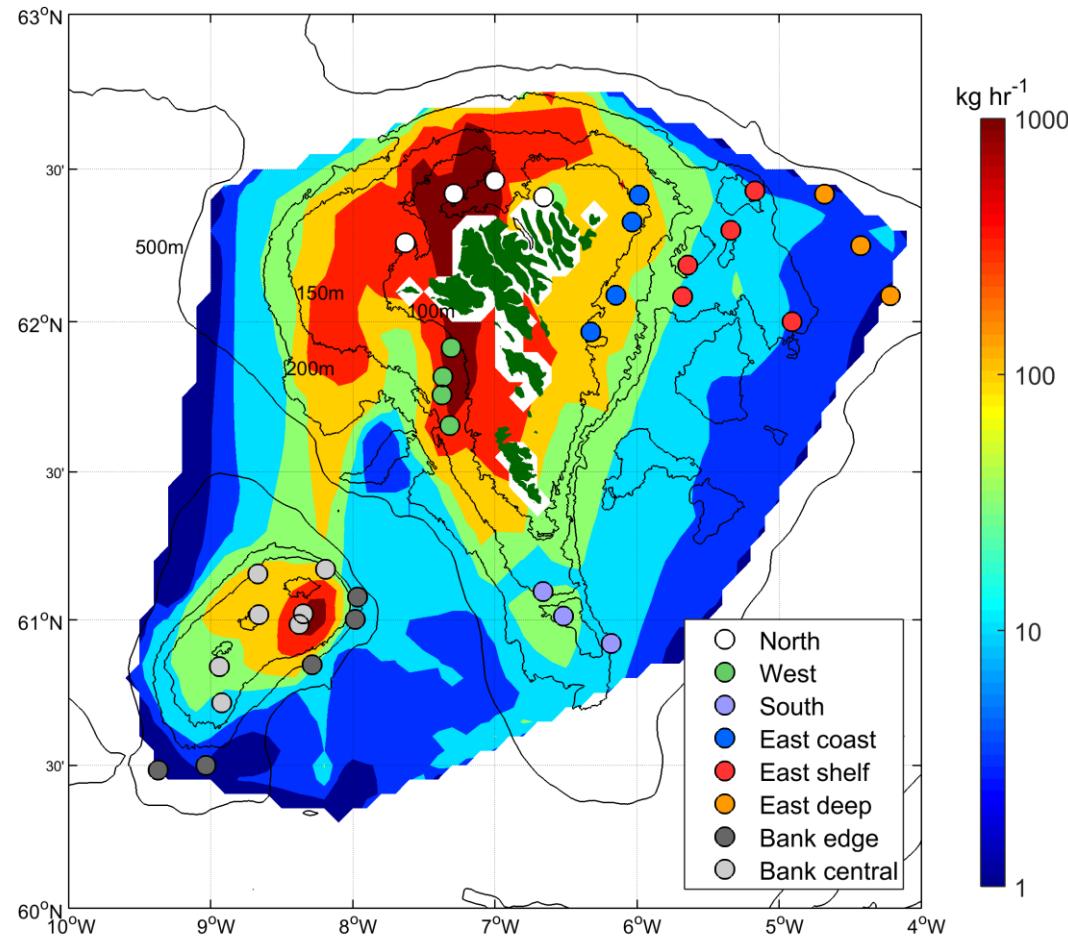
# Máta toska-eDNA í sjógví



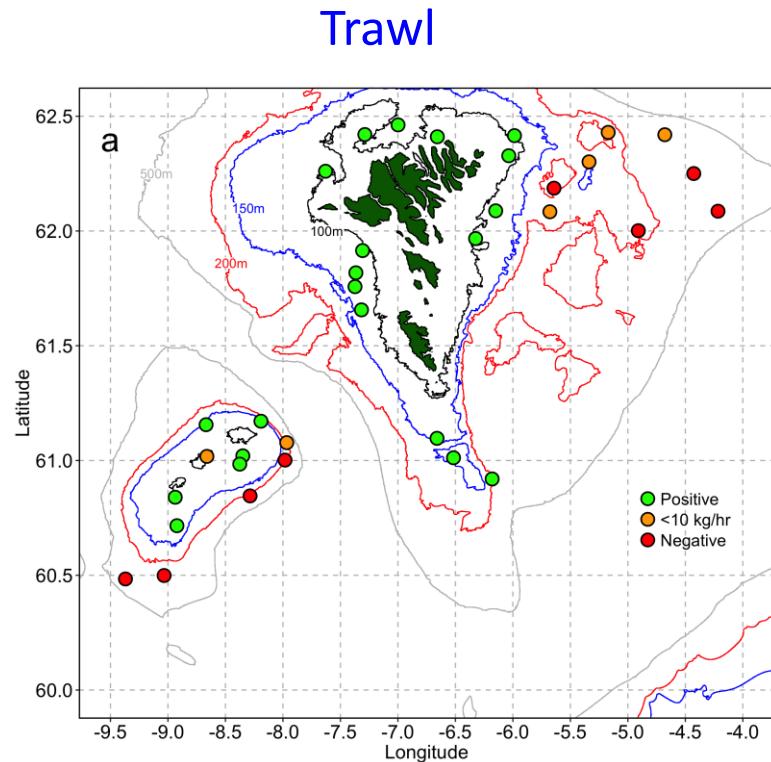
# Toska-eDNA: Mál

1. Menna ein hátt at máta nøgdina av toska-eDNA í sjógví
2. Samanbera nøgd av toska-eDNA við trolveiðu av toski undir Føroyum

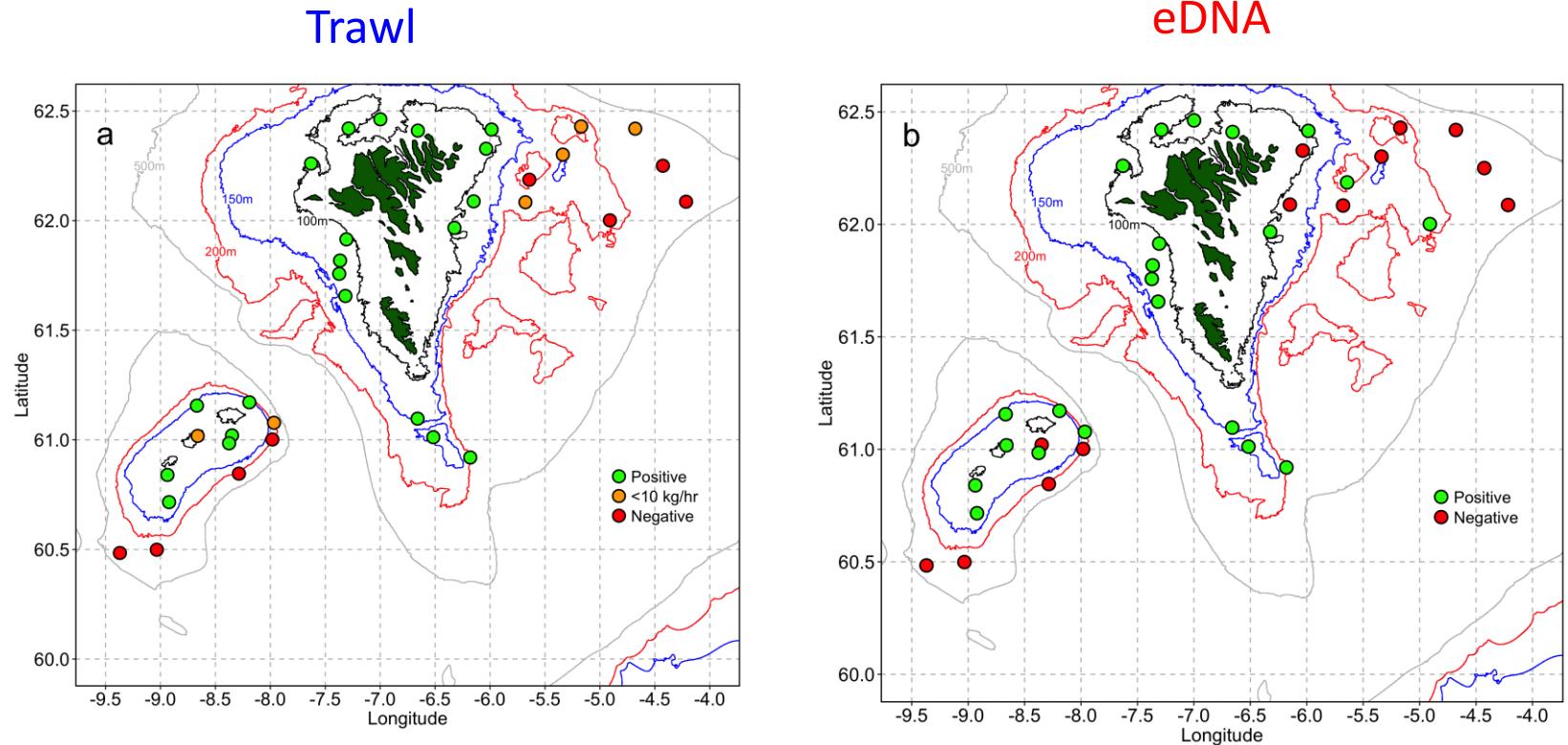
# Samanbera eDNA og trolveiðu



# Samanbera eDNA og trolveiðu



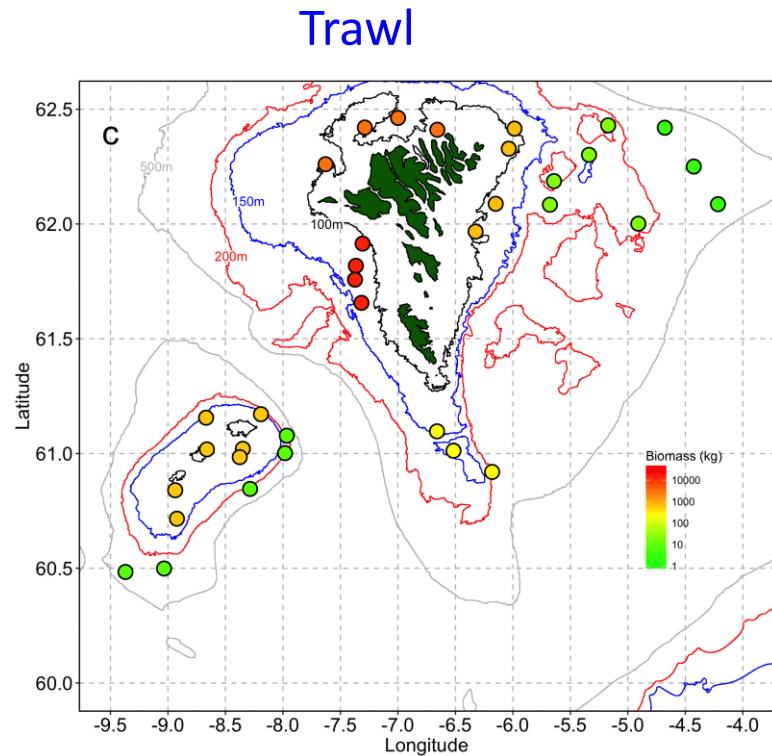
# Samanbera eDNA og trolveiðu



Samsvar millum eDNA og um toskur er í trolinum = 80%

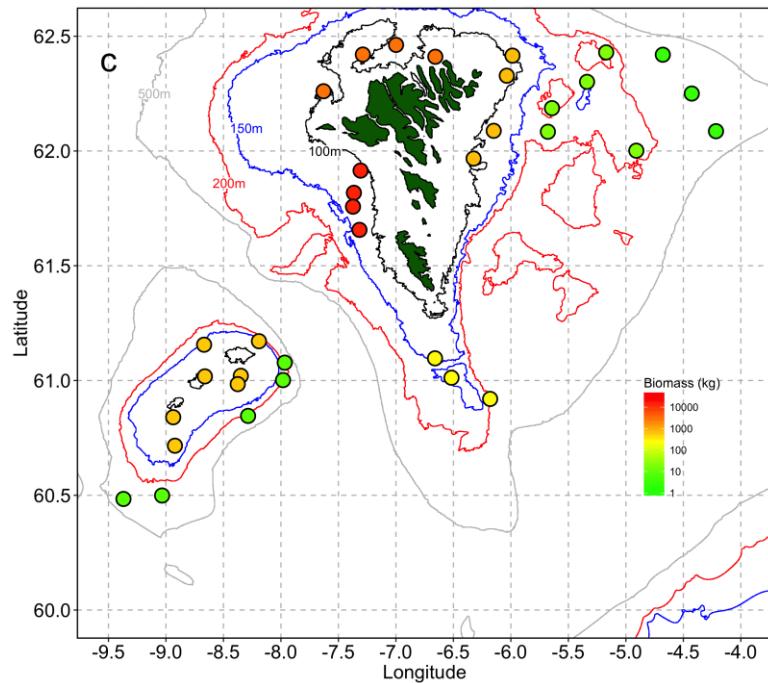
*Salter et al. In revision*

# Samanbera eDNA og trolveiðu

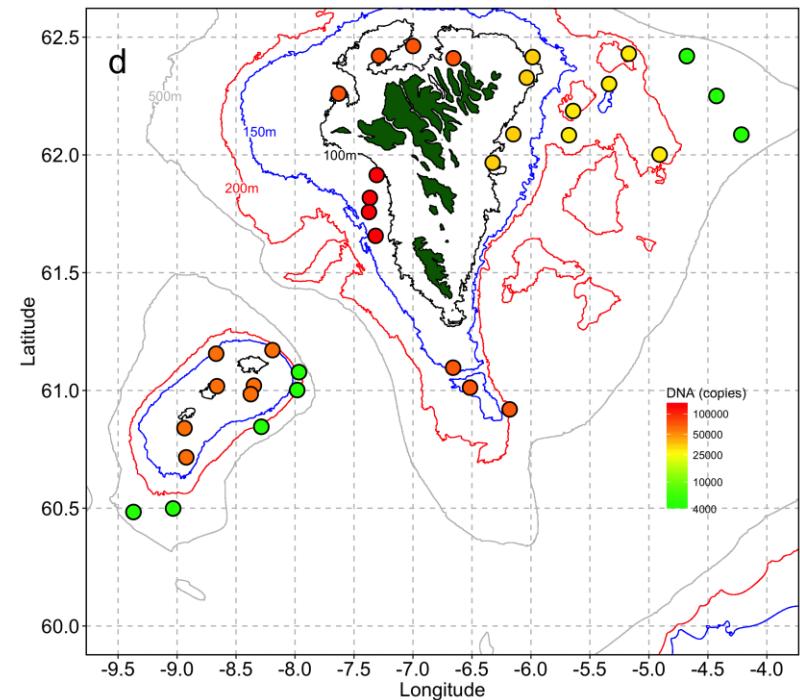


# Samanbera eDNA og trolveiðu

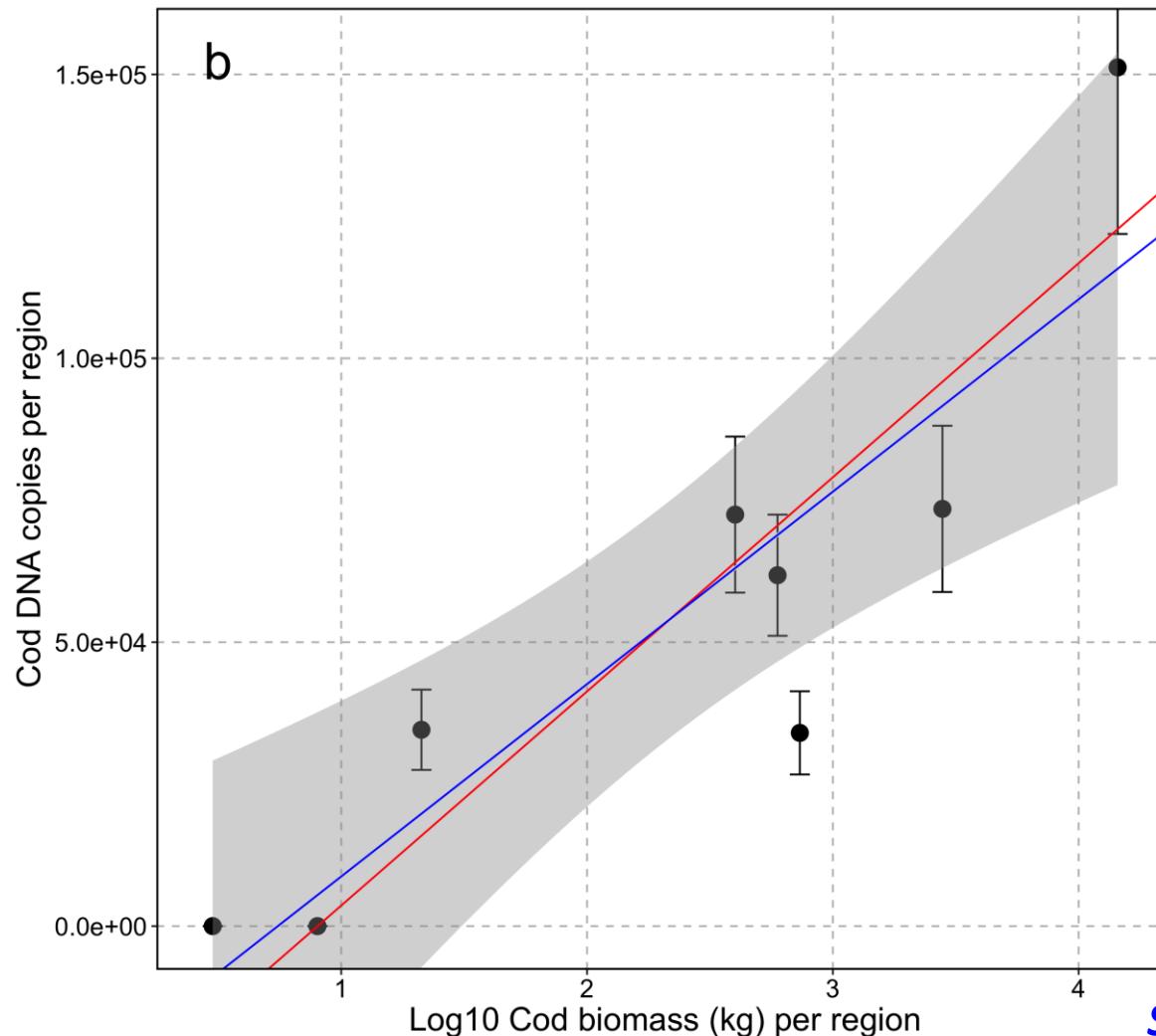
Trawl



eDNA



# Samanbera eDNA og trolveiðu



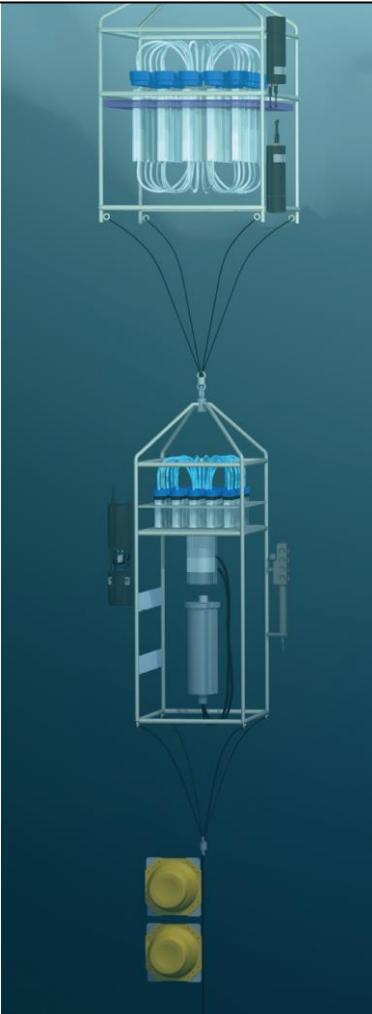
# Niðurstøður

- eDNA er ein nýggjur háttur at kanna vistskipanir
- Kann brúkast til at staðfesta, hvørji fiskaslög eru tilstaðar
- Kann eisini brúkast til at vísa nøgd av fiski (útbreiðslu) í einum øki
- Kann eDNA eisini brúkast til at finna sveiggj í fiskastovnum?

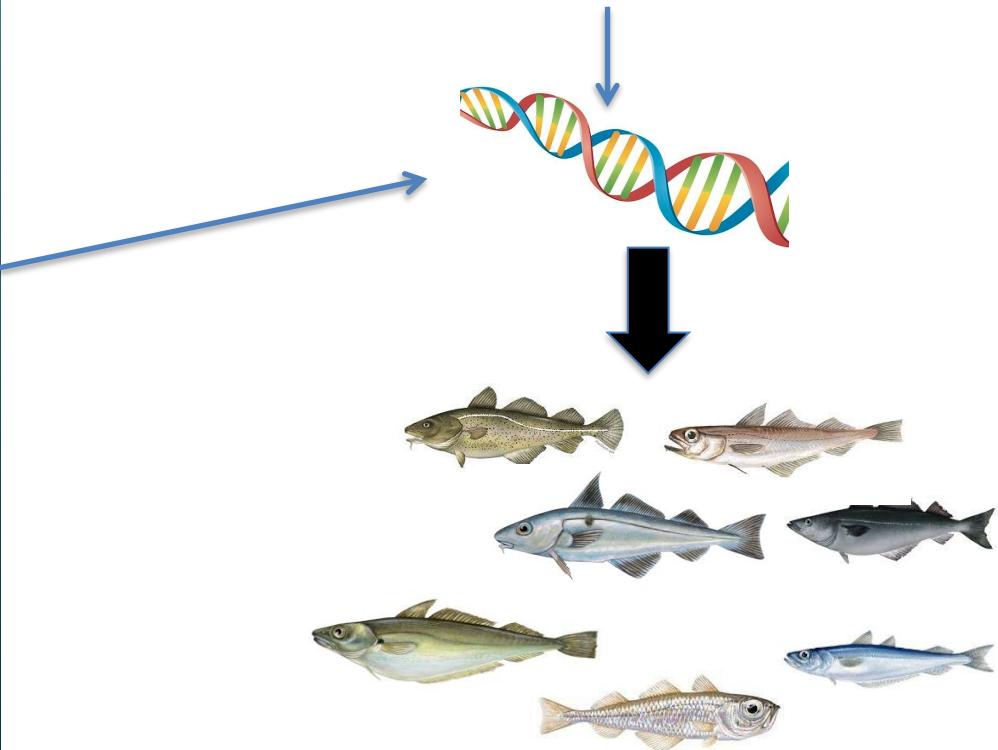
# Yvirlitskanningar í framtíðini



Sjálvvirkandi tól til at taka sjógvprøvar



Sjógvprøvar frá ferðamannaskipum



# Takkir

Takk fyrí, at tit lýddu á!



Fiskivinnugranskning  
Fisheries Research Fund of the Faroe Islands

