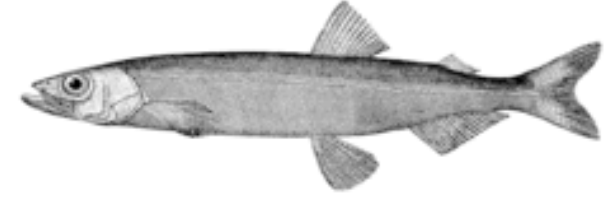


Capelin dataset








DOI: 10.1111/mec.15499

ORIGINAL ARTICLE

MOLECULAR ECOLOGY WILEY



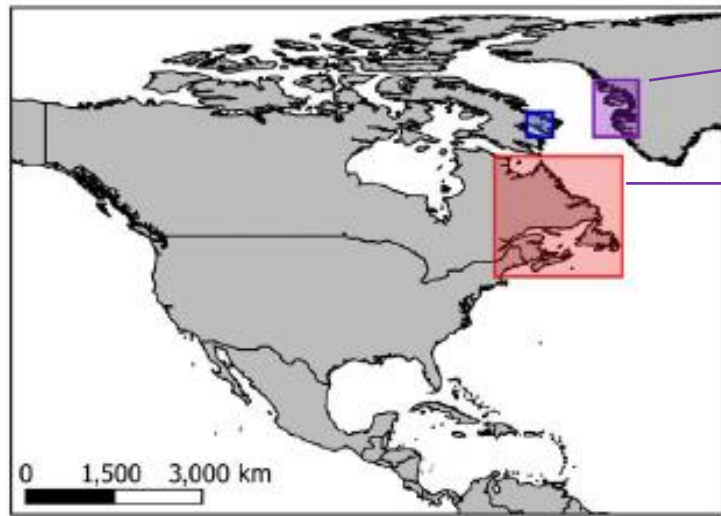
Shared ancestral polymorphisms and chromosomal rearrangements as potential drivers of local adaptation in a marine fish

Hugo Cayuela^{1*}  | Quentin Rougemont^{1*}  | Martin Laporte¹  | Claire Mérot¹  |
Eric Normandeau¹ | Yann Dorant¹  | Ole K. Tørresen² | Siv Nam Khang Hoff²  |
Sissel Jentoft²  | Pascal Sirois³ | Martin Castonguay⁴ | Teunis Jansen^{5,6} |
Kim Praebel⁷ | Marie Clément^{8,9} | Louis Bernatchez¹

- *Mallotus villosus*
- Small fish
- Spawn on beaches
- Cold waters of the North Atlantic Ocean



Capelin dataset



Greenland species

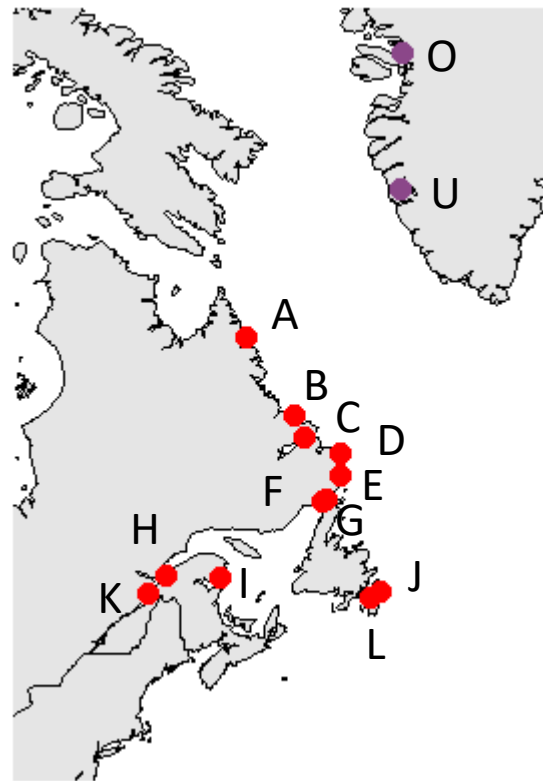
North American species

2 population

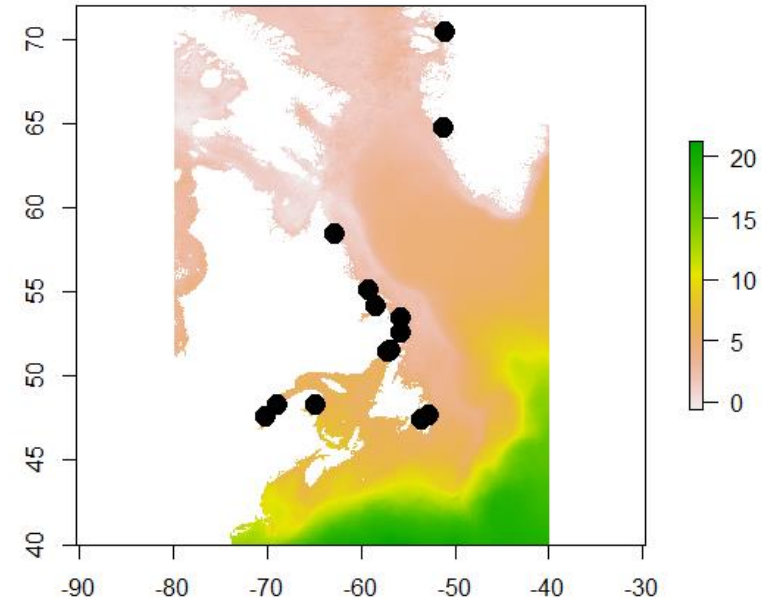
N= 40

12 populations

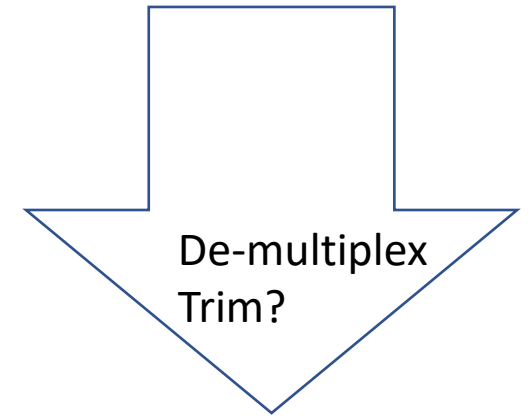
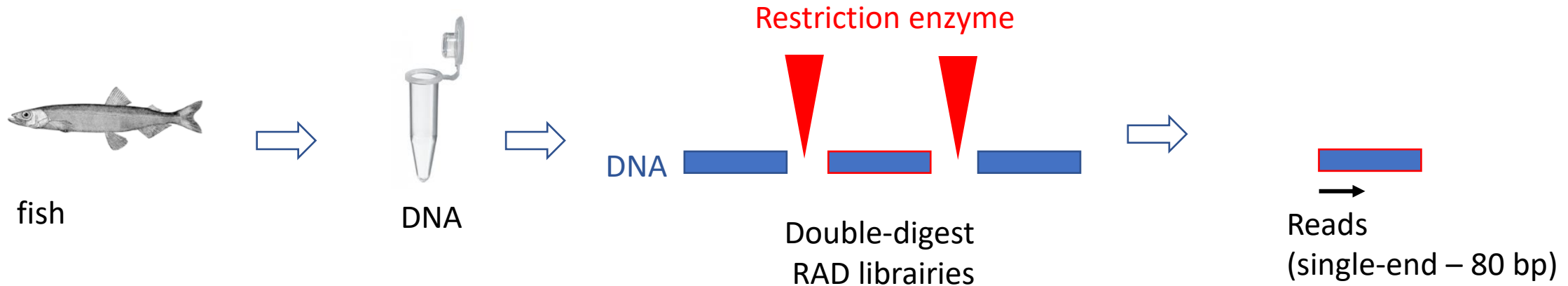
N= 240 (20/pop)



Sea temperature
(from MARSPEC)



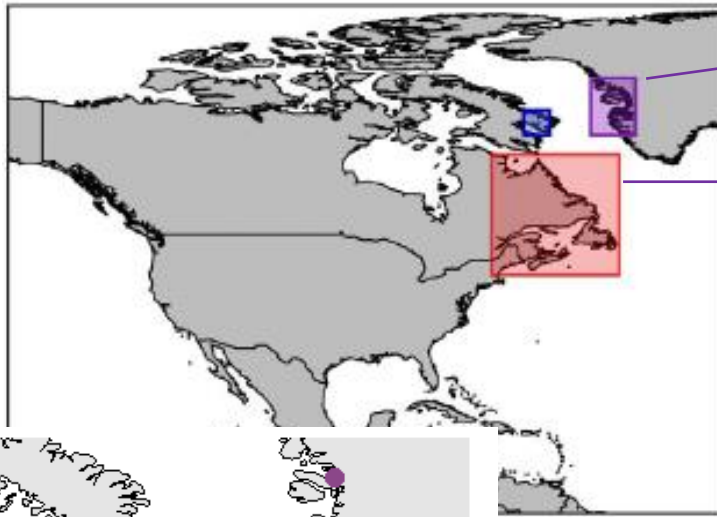
Capelin dataset



De-multiplex
Trim?

N fastQ files

```
@70ZFD:01332:11598/1
TGCATCAACTTTAAGATACGCTATTGGAGCTGGAATTACCGCGGCTGCTGGCACCCAGACTTGCCCTCCAATGGATCCTC
+
7<<=<;<4676*115345::=<;<=6;5<;<;7<1918<199<6<<::9:5:556+38469166=3;<6<655-477-4/
@70ZFD:01334:11636/1
TGCATCCTGTGGAAGTAGCTGCACACCTGCTCATGCTGTGCCAGGAAGGGAGGGTGGGATCAGCCAATCGGGGAACAGAG
+
5;?;;;5855;4:4<A<;<<;<<<B9B=<<<<<<;<;=<<:69:58-55)533)/893<;:9:496888<:1;599;;B
@70ZFD:01335:11615/1
TGCATGGCAGAGTGGAGAGGAGCGCCCTCTACTGGAACCTTCTGGAACAGGTCCTCCGAATGTCCAAGGTACAACGGTTC
```



Greenland species

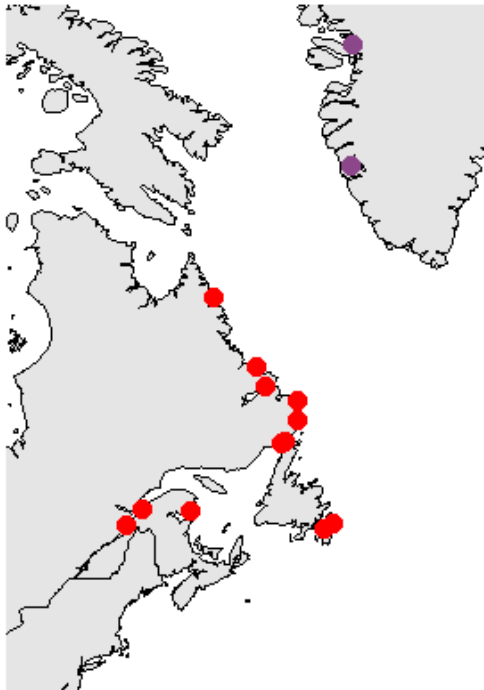
North American species

2 population

N= 40

12 populations

N= 240 (20/pop)



Dataset 1	Dataset 2	Dataset 3
« 2_lin »	« all »	« canada »
4 populations (2 greenland /2 canadian) => 80 samples	14 populations (2 greenland /12 canadian) => 280 samples	12 populations (12 canadian) => 240 samples
Fst (stacks, vcftools) PCA	Faststructure DAPC	PCA DAPC Local PCA ALL analyses of day 3-day4-day5