

MQWI[®]

Resultat av DNA sporing Åna- Sira

• 07.10.2021

MQWI[®]

Sample and genotype information

- 32 DNA samples received
- 29 samples passed good DNA quality check and genotyping quality threshold
- 0 samples had poor heterozygosity
- All fish were genotyped with the Thermo-Fisher SALMOW1 Axiom array

Genomic analysis for assigning to the Mowi strain and Mowi broodstock

Two independent analyses

1. Parentage (priority). All sires used in Mowi for production are genotyped, therefore the expectation is that escaped Mowi production fish should assign to our sires
 - This analysis using high resolution SNP data (as is case here with 50K+ markers) is EXTREMELY accurate with an 'opposite homozygote method'
2. Principal components analysis on genotype data. Samples more closely related 'cluster together' in a PCA plot.

Sample set 2: 2021

- Genotypes from 13 991 sires and 11 959 dams (not the main focus) were used
- 14 641 genotypes used for assignment

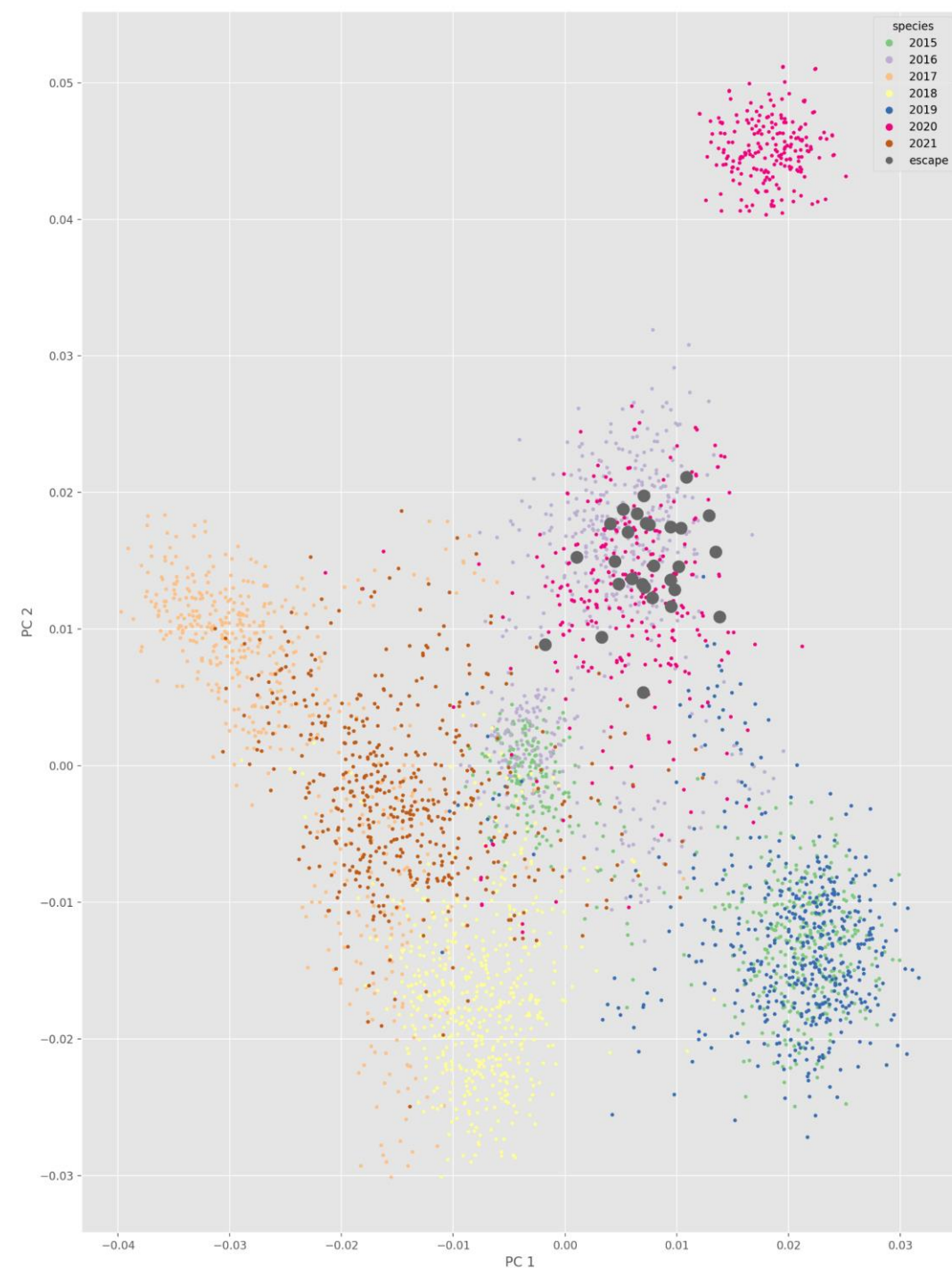
Parentage analysis

ID	SIRE	OH SIRE	DAM	OH DAM
2021_escape_2_7163_B03	2016GNOS1BN04563B08	59		
2021_escape_2_7163_C01	2016GNOS1BN04563B08	62		
2021_escape_2_7163_E02	2016GNOS1BN04563B08	47		
2021_escape_2_7163_F01	2016GNOS1BN04563B08	68	2016GNOS1BN04673C04	39
2021_escape_2_7163_F04	2016GNOS1BN04563B08	59		
2021_escape_2_7163_G02	2016GNOS1BN04563B08	55	2016GNOS1AG01336C05	290
2021_escape_2_7163_G04	2016GNOS1BN04563B08	195		
2021_escape_2_7163_H01	2016GNOS1BN04563B08	56		
2021_escape_2_7163_A03	2016GNOS1BN04709G02	174	2016GNOS1BN04626D12	158
2021_escape_2_7163_F03	2016GNOS1BN04709G02	34	2016GNOS1BN04508F03	35
2021_escape_2_7163_A01	2016GNOS1BN04726D02	39		
2021_escape_2_7163_A02	2016GNOS1BN04726D02	39		
2021_escape_2_7163_A04	2016GNOS1BN04726D02	34		
2021_escape_2_7163_B01	2016GNOS1BN04726D02	36	2016GNOS1BN04584A06	33
2021_escape_2_7163_B02	2016GNOS1BN04726D02	41		
2021_escape_2_7163_B04	2016GNOS1BN04726D02	35		
2021_escape_2_7163_C02	2016GNOS1BN04726D02	35		
2021_escape_2_7163_C03	2016GNOS1BN04726D02	29		
2021_escape_2_7163_D02	2016GNOS1BN04726D02	36	2016GNOS1BN04673C04	41
2021_escape_2_7163_D03	2016GNOS1BN04726D02	36		
2021_escape_2_7163_D04	2016GNOS1BN04726D02	39		
2021_escape_2_7163_E01	2016GNOS1BN04726D02	32		
2021_escape_2_7163_E04	2016GNOS1BN04726D02	123		
2021_escape_2_7163_F02	2016GNOS1BN04726D02	246		
2021_escape_2_7163_G01	2016GNOS1BN04726D02	36		
2021_escape_2_7163_H02	2016GNOS1BN04726D02	170		
2021_escape_2_7163_H03	2016GNOS1BN04726D02	77	2016GNOS1IE01366E03	262
2021_escape_2_7163_H04	2016GNOS1BN04726D02	36	2016GNOS1BN04665B10	33
2021_escape_2_7163_E03				

Using only Mowi Norway populations

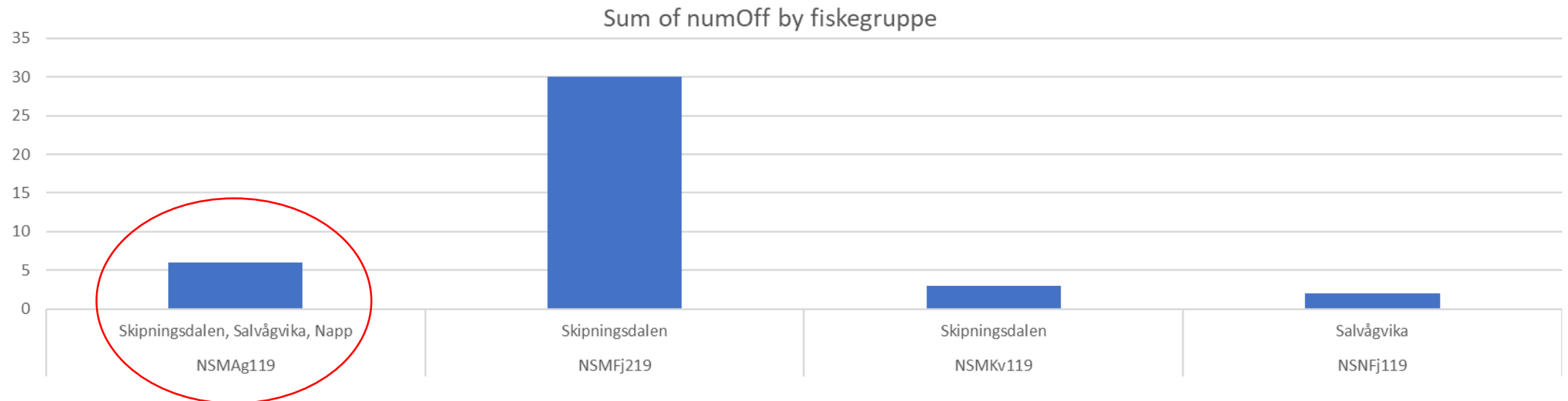
Escaped [●] Salmon embedded in Mowi Norway population

- Mixed with the 16G population because these are the Expected parents and 20G as expected half-sibs



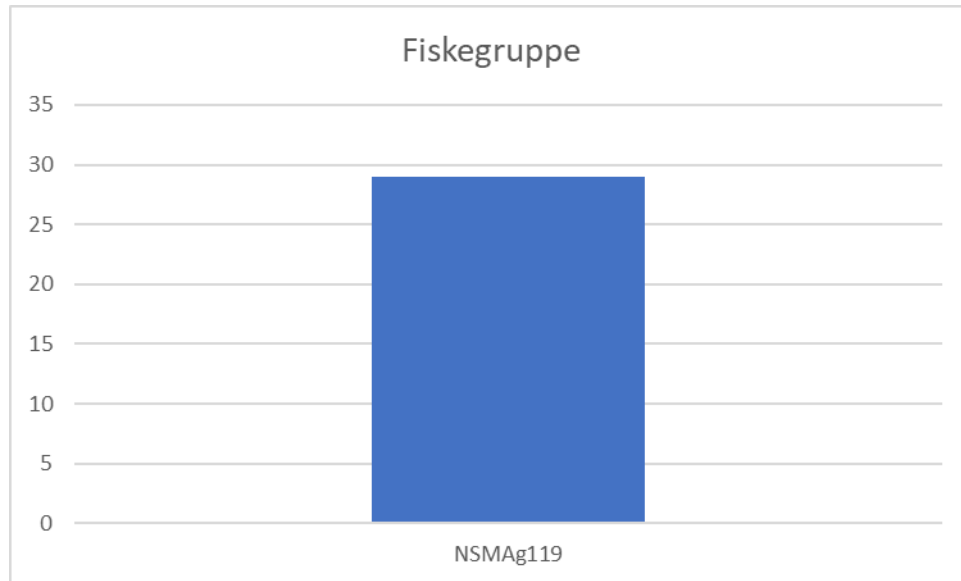
• Hva så?

- Gjennom å vite når de ulike hannene er brukt i strykingen og hvor, kan vi spore oss frem til hvilke sylindere eggene ble inkubert i og deretter hvilke settefiskanlegg som fikk befruktete rognkorn.
- Deretter kan vi spore fra settefiskanlegg pr fiskegruppe til lokalitet.
- I dette tilfelle er rognen levert til settefisk anlegg i Agder og Scotland.
- Dette er en av de samme fiskegruppene som ble funnet i 2020.



- **Pr fiskegruppe**

- Det ble funnet fisk fra en fiskegruppe, som stod i totalt 5 merder på tre lokaliteter



Salvågsvika - ASC							Utsettinformatjon				
Not	# bestilt	# levert	+ / -	Vekt (g)	Notttype	Biom (kg)	Stamme	Vaksine	Dato	Anlegg	Gruppe
1	200 000	174 402	-12,8 %	124		21 626	MOWI	Micro 6+ERM	03.09.2019	Fjæra	NSMFj119
2	200 000	200 000	0,0 %	124		24 800	MOWI	Micro 6+ERM	03.09.2019	Fjæra	NSMFj119
3	200 000	199 695	-0,2 %	163		32 550	MOWI	Micro 6+ERM	31.08.2019	Fjæra	NSMFj119
7	200 000	199 657	-0,2 %	196		39 133	MOWI	Micro 6+ERM	31.08.2019	Fjæra	NSMFj119
8	200 000	198 482	-0,8 %	217		43 071	MOWI	Micro 6+ERM	29.08.2019	Fjæra	NSMFj119
9	200 000	199 455	-0,3 %	192		38 295	MOWI	Micro 6+ERM	01.09.2019	Fjæra	NSMFj119
10	200 000	199 998	0,0 %	158		31 600	MOWI	Micro 6+ERM	29.08.2019	Fjæra	NSMFj119
11	200 000	199 842	-0,1 %	154		30 776	MOWI	Micro 6+ERM	29.08.2019	Fjæra	NSMFj119
4	200 000	199 997	0,0 %	163		32 600	MOWI	Micro 6+ERM	03.09.2019	Øyerhamn	NSMOy119
Sum	1 800 000	1 771 528	-1,6 %	164		294 450					

Napp - ASC							Utsettinformatjon				
Not	# bestilt	# levert	+ / -	Vekt (g)	Notttype	Biom (kg)	Stamme	Vaksine	Dato	Anlegg	Gruppe
11	177000	182304	3,0 %	139		25 340	MOWI	Micro 6+ERM	07.10.2019	Agder	NSMAg119
12	177000	175744	-0,7 %	174		30 579	MOWI	Micro 6+ERM	07.10.2019	Agder	NSMAg119
13	177000	178224	0,7 %	201		35 823	MOWI	Micro 6+ERM	07.10.2019	Agder	NSMAg119
Sum	531 000	536 272	1,0 %	173		91 743					

Skipningsdalen - ASC							Utsettinformatjon				
Not	# bestilt	# levert	+ / -	Vekt (g)	Notttype	Biom (kg)	Stamme	Vaksine	Dato	Anlegg	Gruppe
5	200 000	195 990	-2,0 %	153		29 986	MOWI	Micro 6+ERM	10.10.2019	Kvingo	NSMKv119
2	200 000	198 006	-1,0 %	115		22 771	MOWI	Micro 6+ERM	03.11.2019	Fjæra	NSMFj219
3	200 000	199 000	-0,5 %	95		18 905	MOWI	Micro 6+ERM	05.11.2019	Fjæra	NSMFj219
4	200 000	199 915	0,0 %	95		18 992	MOWI	Micro 6+ERM	05.11.2019	Fjæra	NSMFj219
6	200 000	198 337	-0,8 %	115		22 809	MOWI	Micro 6+ERM	03.11.2019	Fjæra	NSMFj219
7	200 000	159 073	-20,5 %	122		19 407	MOWI	Micro 6+ERM	01.11.2019	Fjæra	NSMFj219
8	200 000	199 996	0,0 %	124		24 800	MOWI	Micro 6+ERM	01.11.2019	Fjæra	NSMFj219
9	200 000	199 590	-0,2 %	144		28 741	MOWI	Micro 6+ERM	06.10.2019	Agder	NSMAg119
10	200 000	199 094	-0,5 %	164		32 651	MOWI	Micro 6+ERM	06.10.2019	Agder	NSMAg119
Sum	1 800 000	1 749 001	-2,8 %	122		219 062					

Buksevika - ASC							Utsettinformatjon				
Not	# bestilt	# levert	+ / -	Vekt (g)	Notttype	Biom (kg)	Stamme	Vaksine	Dato	Anlegg	Gruppe
1	178 000	169 909	-4,5 %	126		21 409	MOWI	Micro 6+ERM	25.08.2019	Herand	NSMHe119
2	178 000	173 601	-2,5 %	193		33 505	MOWI	Micro 6+ERM	06.10.2019	Herand	NSMHe119
3	178 000	179 306	0,7 %	184		32 992	MOWI	Micro 6+ERM	06.10.2019	Herand	NSMHe119
4	178 000	174 099	-2,2 %	127		22 111	MOWI	Micro 6+ERM	25.08.2019	Herand	NSMHe119
9	150 000	153 957	2,6 %	134		20 630	MOWI	Micro 6+ERM	12.10.2019	Vågafossen	NSMVA219
10	150 000	150 636	0,4 %	126		18 980	MOWI	Micro 6+ERM	14.10.2019	Vågafossen	NSMVA219
11	150 000	148 654	-0,9 %	118		17 541	MOWI	Micro 6+ERM	14.10.2019	Vågafossen	NSMVA219
12	150 000	145 485	-3,0 %	150		21 823	MOWI	Micro 6+ERM	12.10.2019	Vågafossen	NSMVA219
Sum	1 312 000	1 295 647	-1,2 %	144		188 991					

• Oppsummering

- Alle de analyserte prøvene viser at dette er Mowi norsk stamme G16
- De analyserte prøvene viser at det er fisk fra totalt 1 fiskegruppe
- Den aktuelle fiskegruppen var tilstede på 3 lokaliteter i Flekkefjord (2019-2021)
- Denne fiskegruppen stod i fem 5 ulike merder

• Thank you

- Veien videre?
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