Progress on pink salmon genetic markers

Alaska Department of Fish & Game
Gene Conservation Lab

University of Washington
Seeb Lab for Ecological Genomics

March 2016 AHRP Meeting
Anchorage, AK

Background

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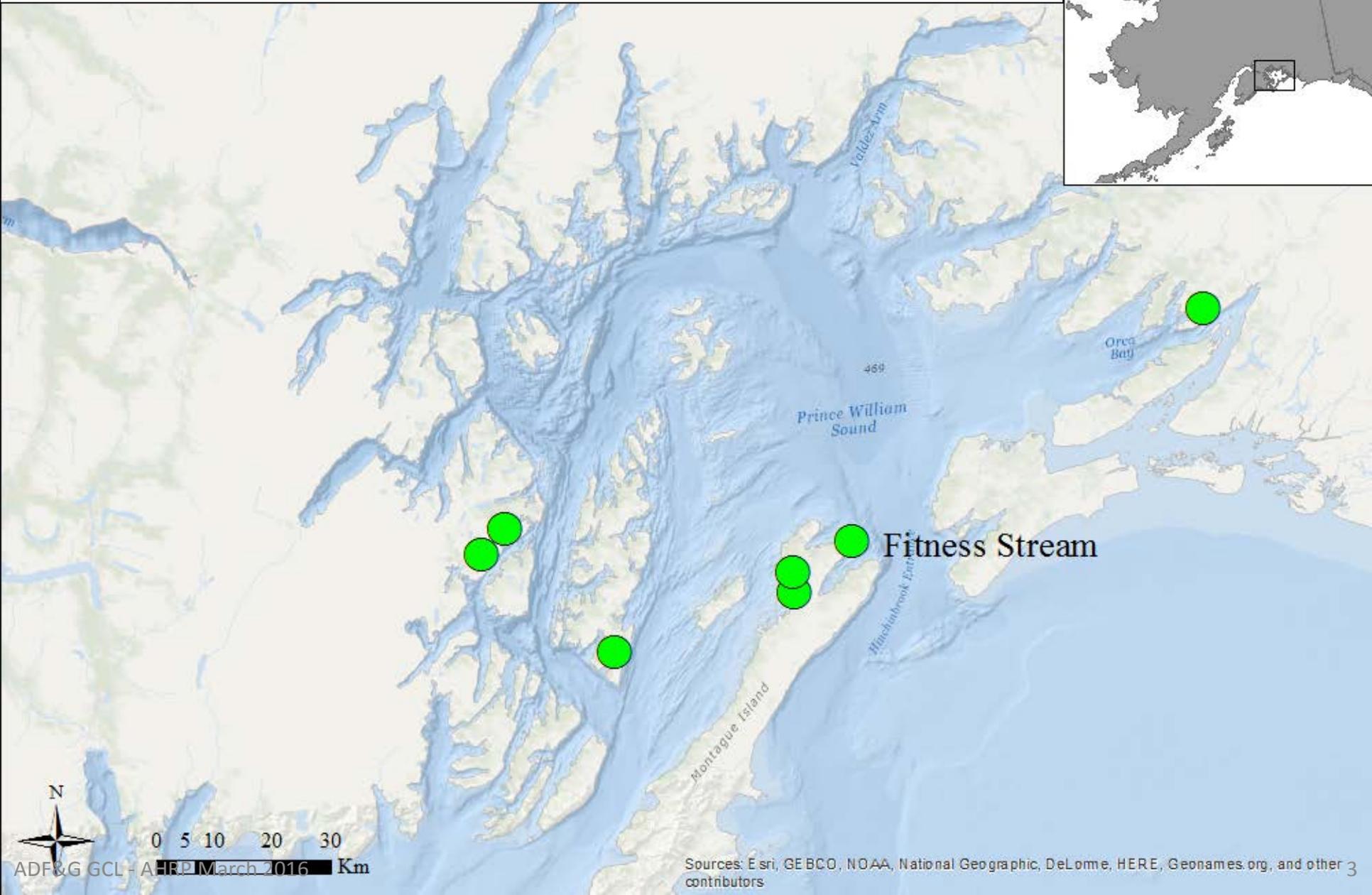
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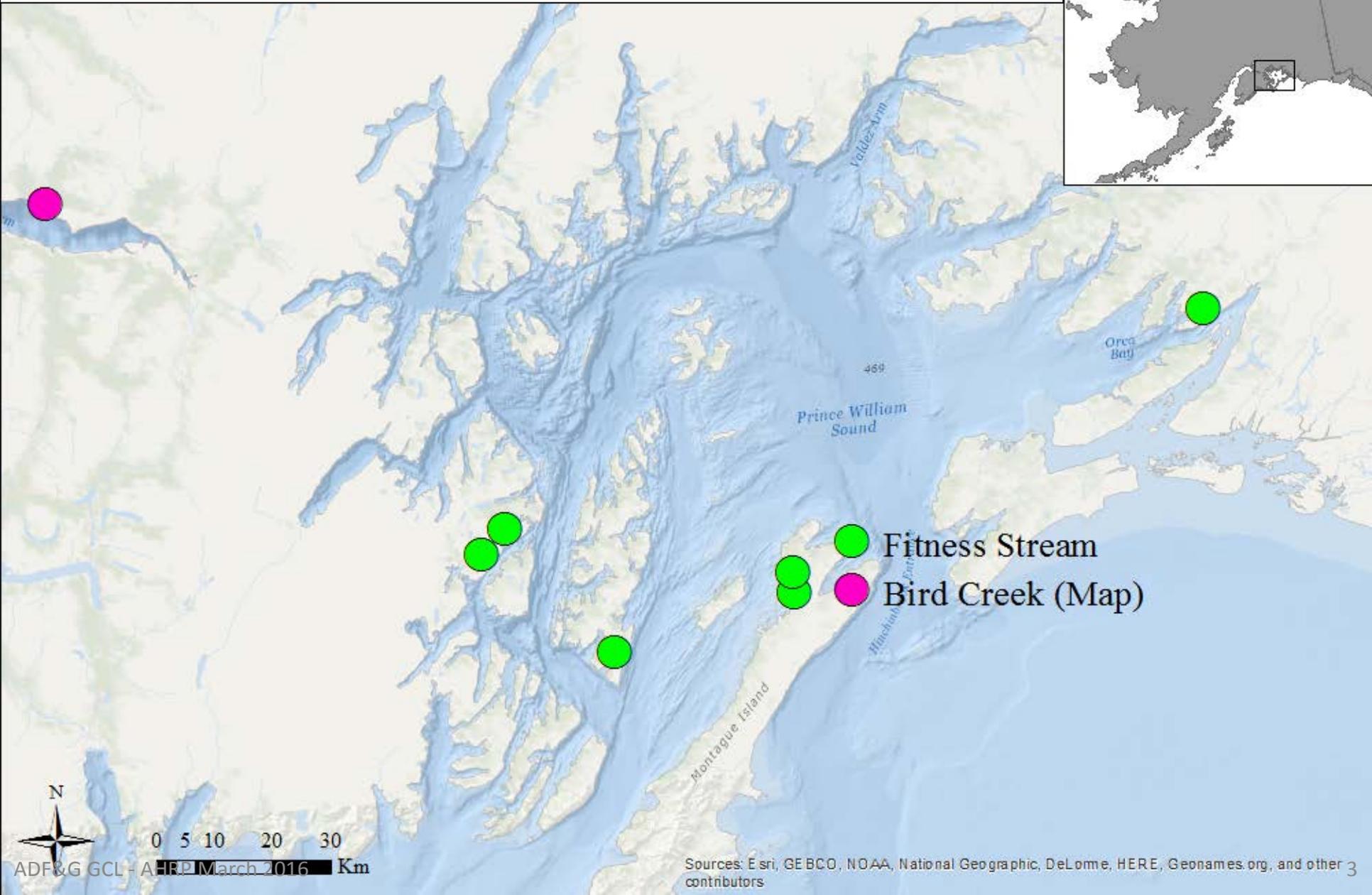- **Development contracted to UW, analysis by UW/ADF&G staff**

Review of experimental design

Fitness Stream

Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, HERE, Geonames.org, and other contributors

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Fitness Stream
Bird Creek (Map)

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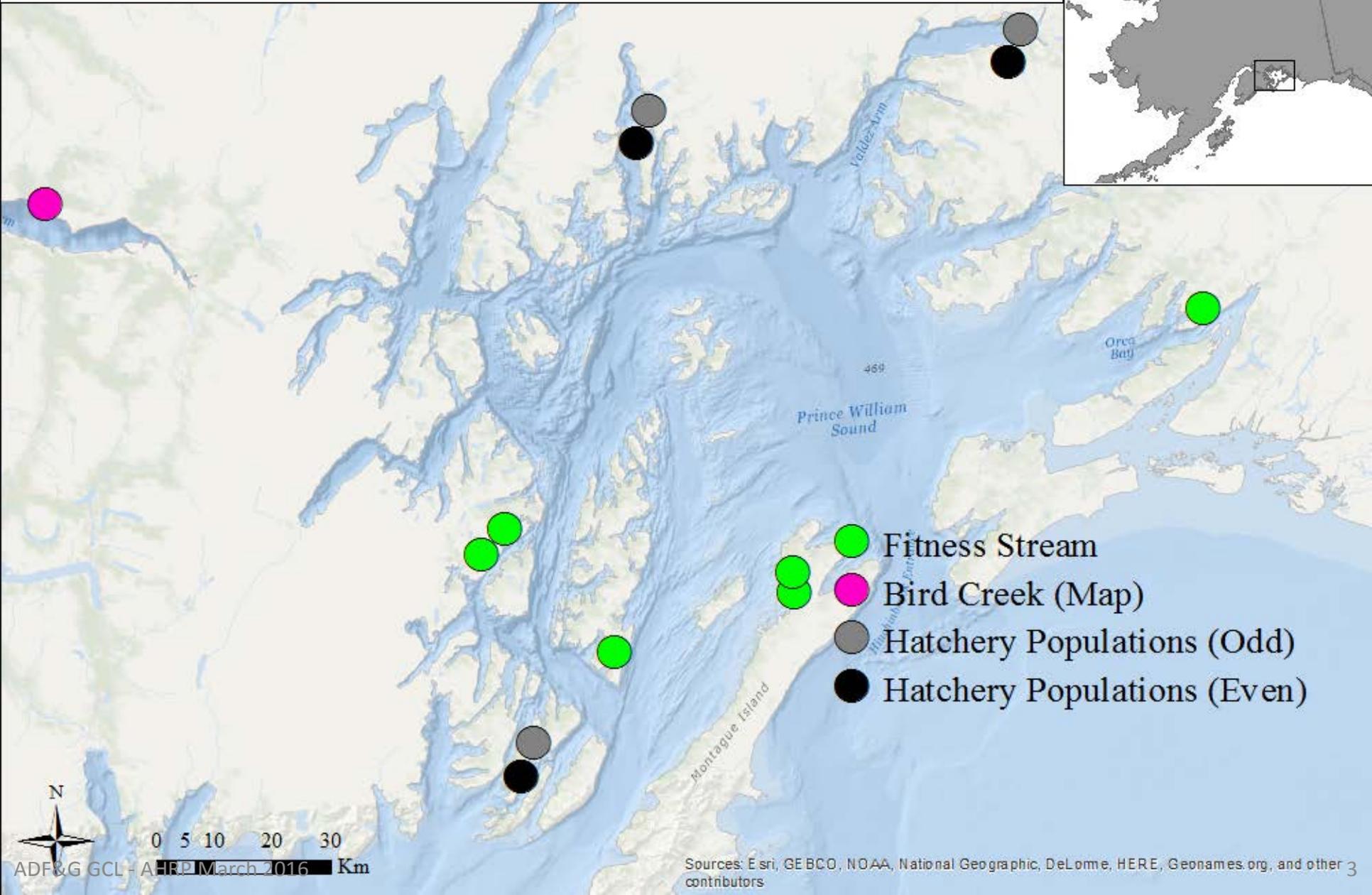
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Fitness Stream
Bird Creek (Map)
Hatchery Populations (Odd)
Hatchery Populations (Even)

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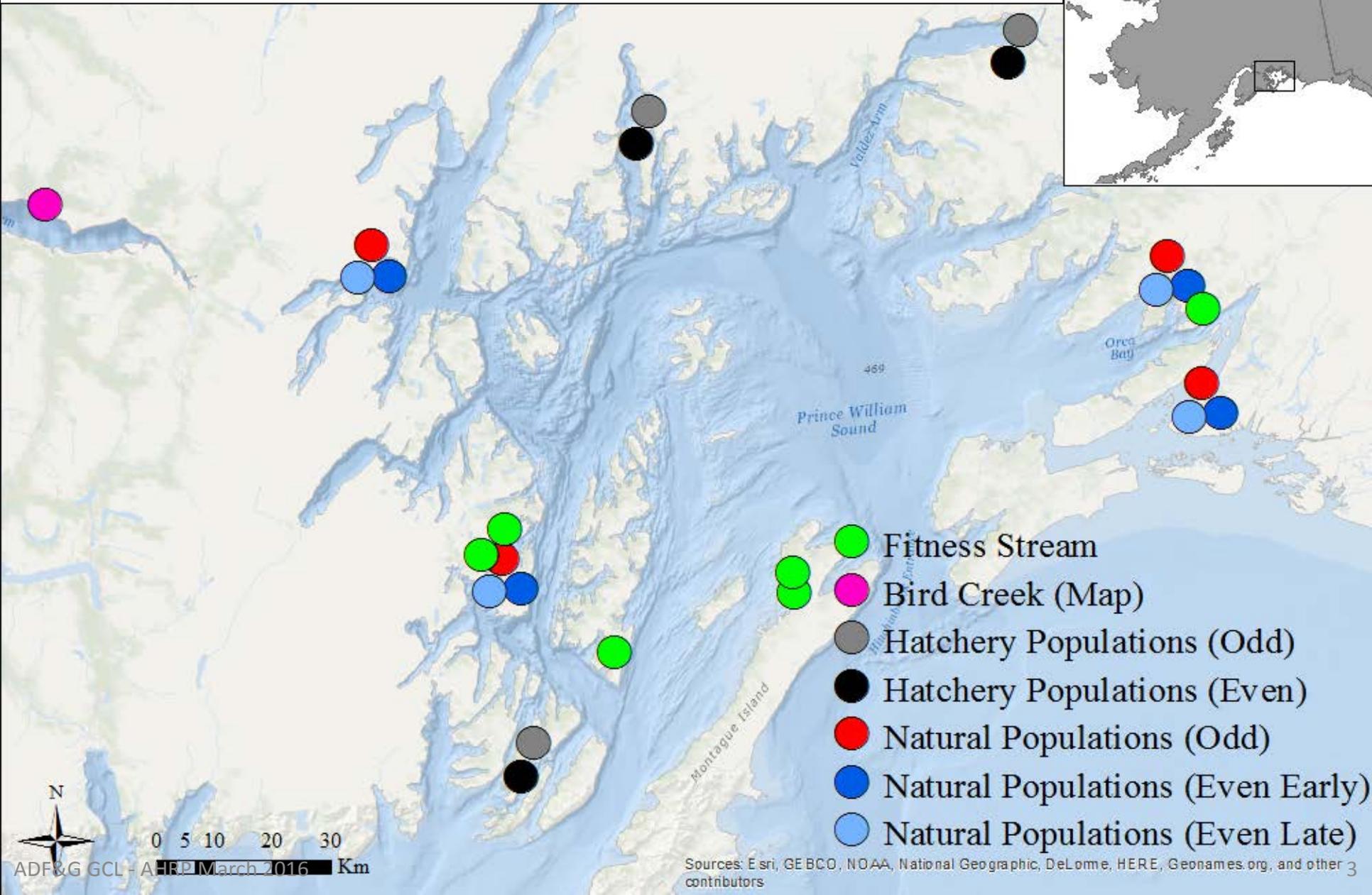
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Fitness Stream
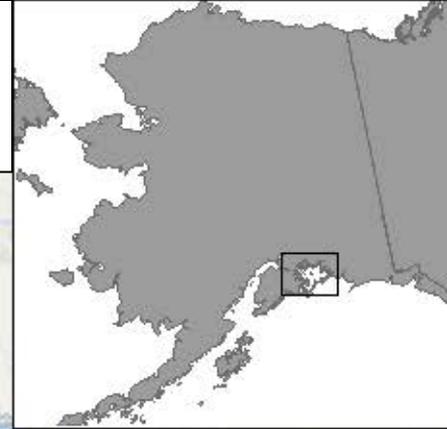Bird Creek (Map)
Hatchery Populations (Odd)
Hatchery Populations (Even)
Natural Populations (Odd)
Natural Populations (Even Early)
Natural Populations (Even Late)

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Results

~70,000-80,000

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Global MAF > 0.05
Genotyped ½ fish within pops

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51,406 Total (26,675 Common)

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Single SNP/RAD tag
7,721

8,738

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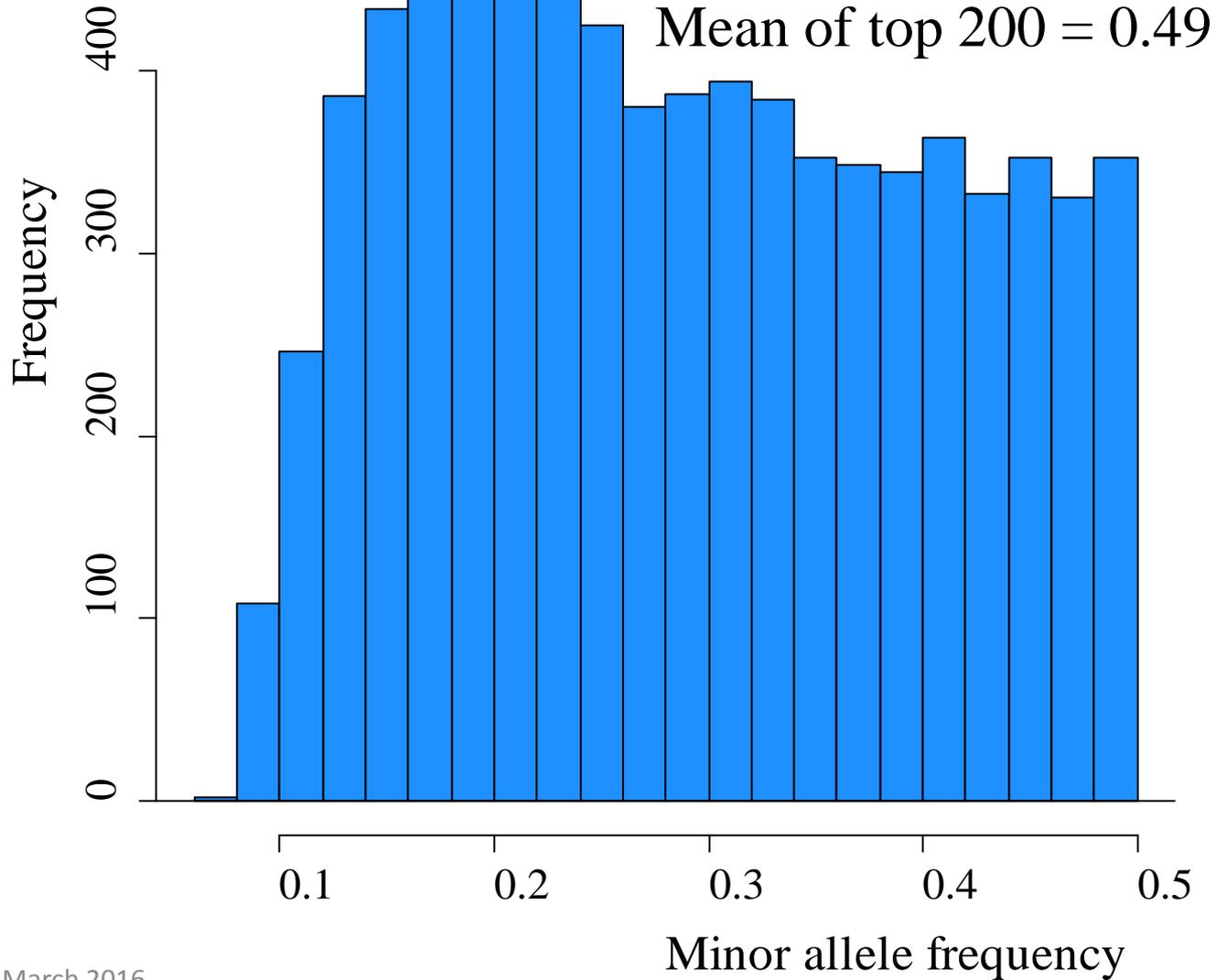
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Minor allele frequency

Mean of top 200 = 0.49

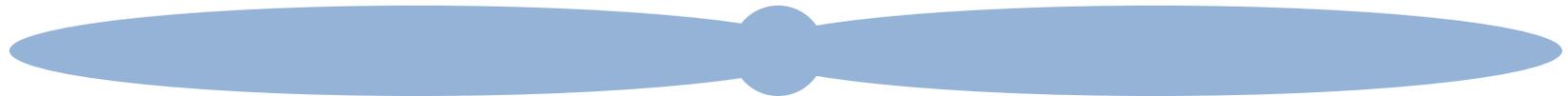# Summary

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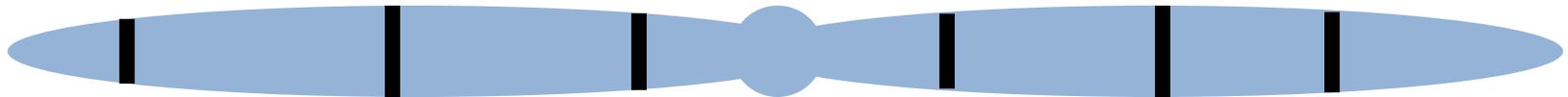 - Locate on map and select independent SNPs

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Timeline

Task	Funding	2016		
		Q2	Q3	Q4
Pink SNP Development	Funded	2	4	5

Key:

Stages of completion	1	2	3	4	5
SNP Development	Data collection	Data filtering	Location on map	SNP selection	Optimization