

## Supplemental data for:

Kettunen, A., Joensen, S. K., Berg, P. (2022). **Optimum contribution selection (OCS) analyses prompted successful conservation actions for Faroese horse population.** *Genetic Resources* 3 (5), 59–67. doi: [10.46265/genresj.KKXV5870](https://doi.org/10.46265/genresj.KKXV5870).

### Algorithm parameters used for EVA analyses

Parameter name	Description	Value
Generations	Number of generations the evolutionary algorithm is running	10,000
NGenerationNoImprovement	Number of generations without improvements, that should stop further iterations	10,000
PopSize	Size of population of solutions that evolves	100
N_offspring	Number of new possible solutions produced per generations	10
Restart_interval	If the best solution has not improved for this number of generations, then more variance is generated by increasing the mutation variance for one generation	2,000
Exchange_algorithm	Interval between using an exchange algorithm to iteratively optimize solutions	500
Mutate_probability	Probability of mutating an individual in a solution (randomly exchanging that individual).	0.001
Crossover_probability	Probability of crossovers when generating a new solution from two parental solutions.	0.20
Directed_mutation_probability	Probability of mutating an individual in a solution (exchanging that individual with a better).	0.01
Seed_rng	Seed for random number generator.	0 (use computer clock to sample seed)