Conclusions

-Diversifying selection is probably acting on outlier gene expression.

A greater gamete quality would also enhance the chance of success to the fertilization revealed by the over-expression of candidate genes for sperm quality and insulin metabolism.

Conclusions

-Reproductive strategies to increase the potential success of natural recruitment and favor colonization of new habitats:

A higher quantity of female gametes shown by the female biased sex-ratio and a higher condition index, which reflects a greater reproductive effort, were observed in the Danish progeny, both being hypothesized as a possible reproductive strategy to increase the potential success of natural recruitment in this recently settled population. Overall the 31,918 mRNAs assayed, the mean phenotypic differentiation (PST) was 0.29. The degree of differentiation in quantitative traits (QST) were estimated on intermediate mRNA levels in hybrid progeny (suggesting additive genetic bases), outliers QST estimates between the two progenies were 55 and 52 in male and females respectively, giving a mean value of 0.5. Among the over-expressed genes observed in the Danish progeny, candidate genes for sperm quality and insulin metabolism were found. Carbohydrate and lipid measurements showed higher levels for hybrid progeny suggesting hybrid vigor for these biochemical characters.