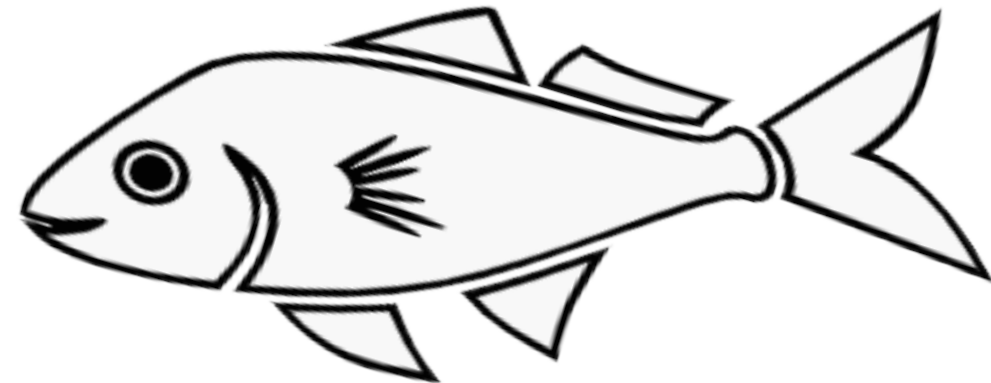
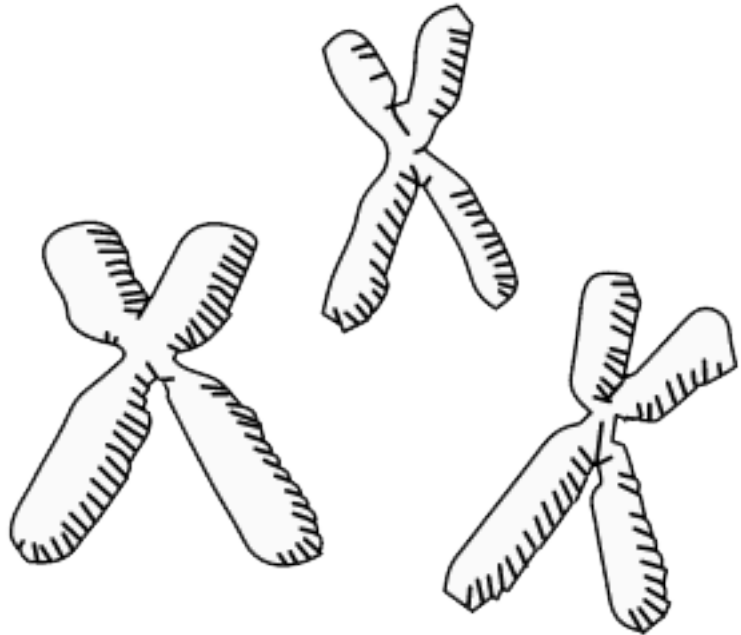


AQS 224 Fish Breeding

Dr. F. Sertel SEÇER

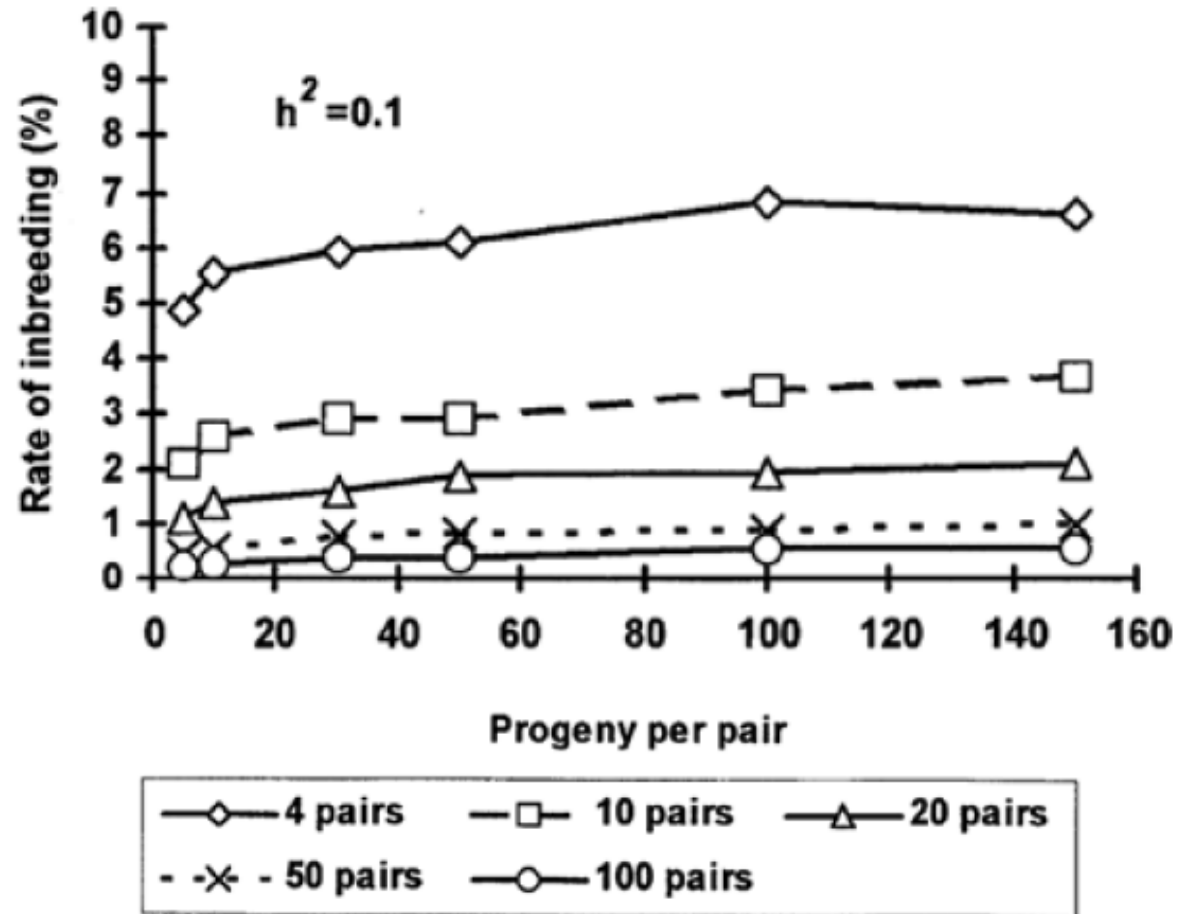


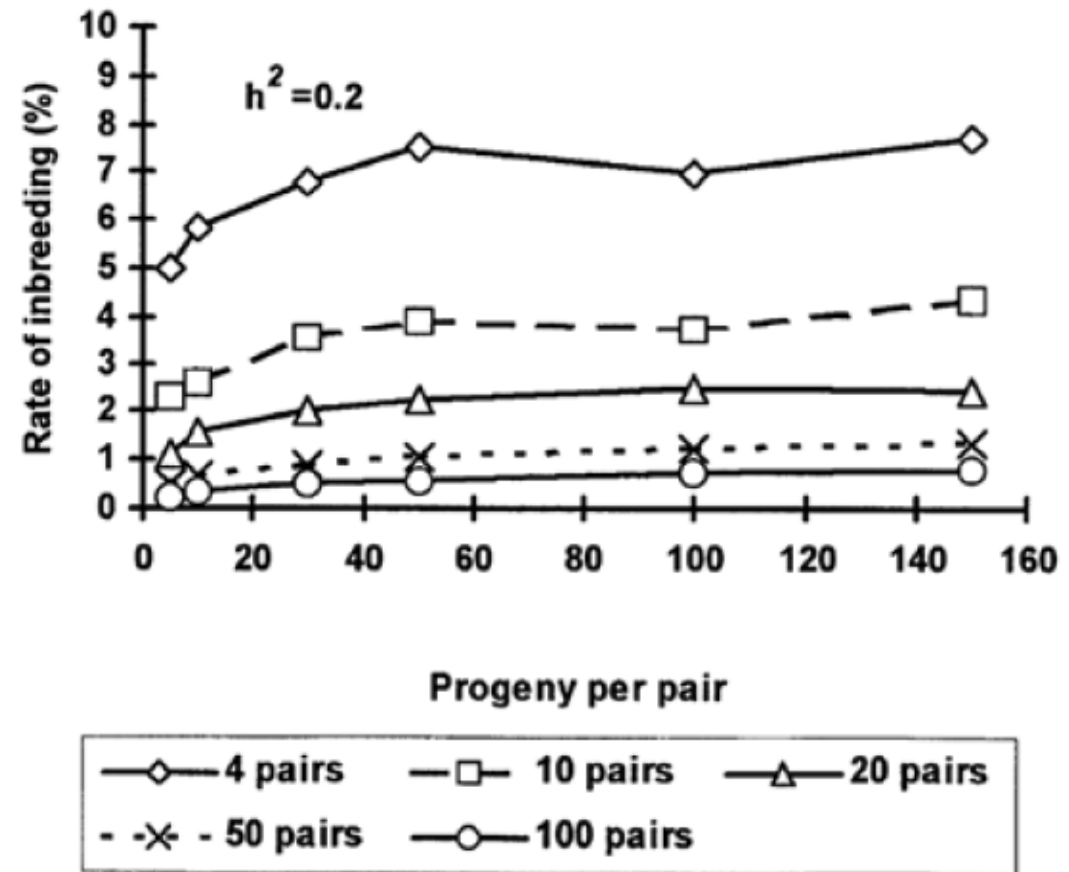
1. Week Domestication, Genetic Improvement Practices in Aquaculture
2. Week Selective breeding / production in seafood
3. Week Theoretical Foundations of Cultivation and Selection
4. Week Breeding Programs
5. Week Strategies for Breeding
6. Week Selection and Mating Design Methods
7. Week Estimation of Breeding Values
8. Week Genotype and Environment Interaction
9. Week Calculating the Selection Response
- 10. Week Side Effects in Fish Breeding Practices**
11. Week Biotechnology in Fish Farming
12. Week Reproduction Techniques in Fish Breeding 1
13. Week Reproduction Techniques in Fish Breeding 2
14. Week Economic Evaluation of Fish Farming

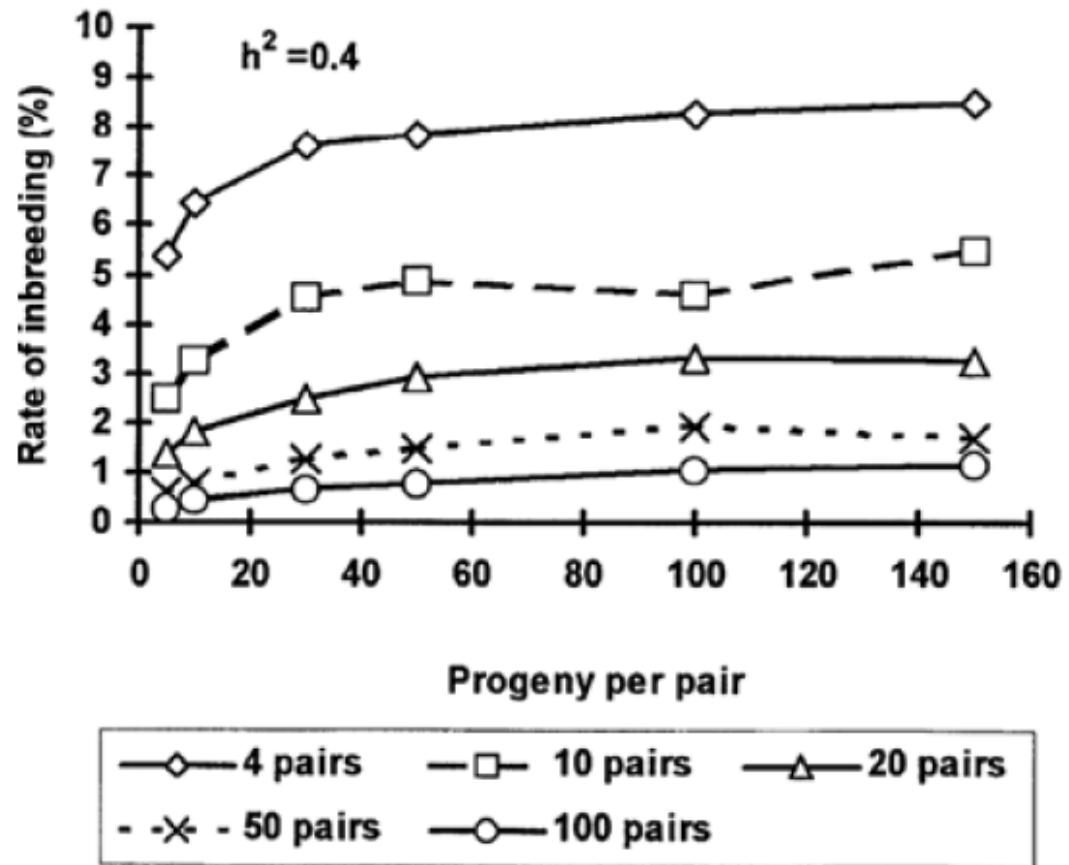
10. Week

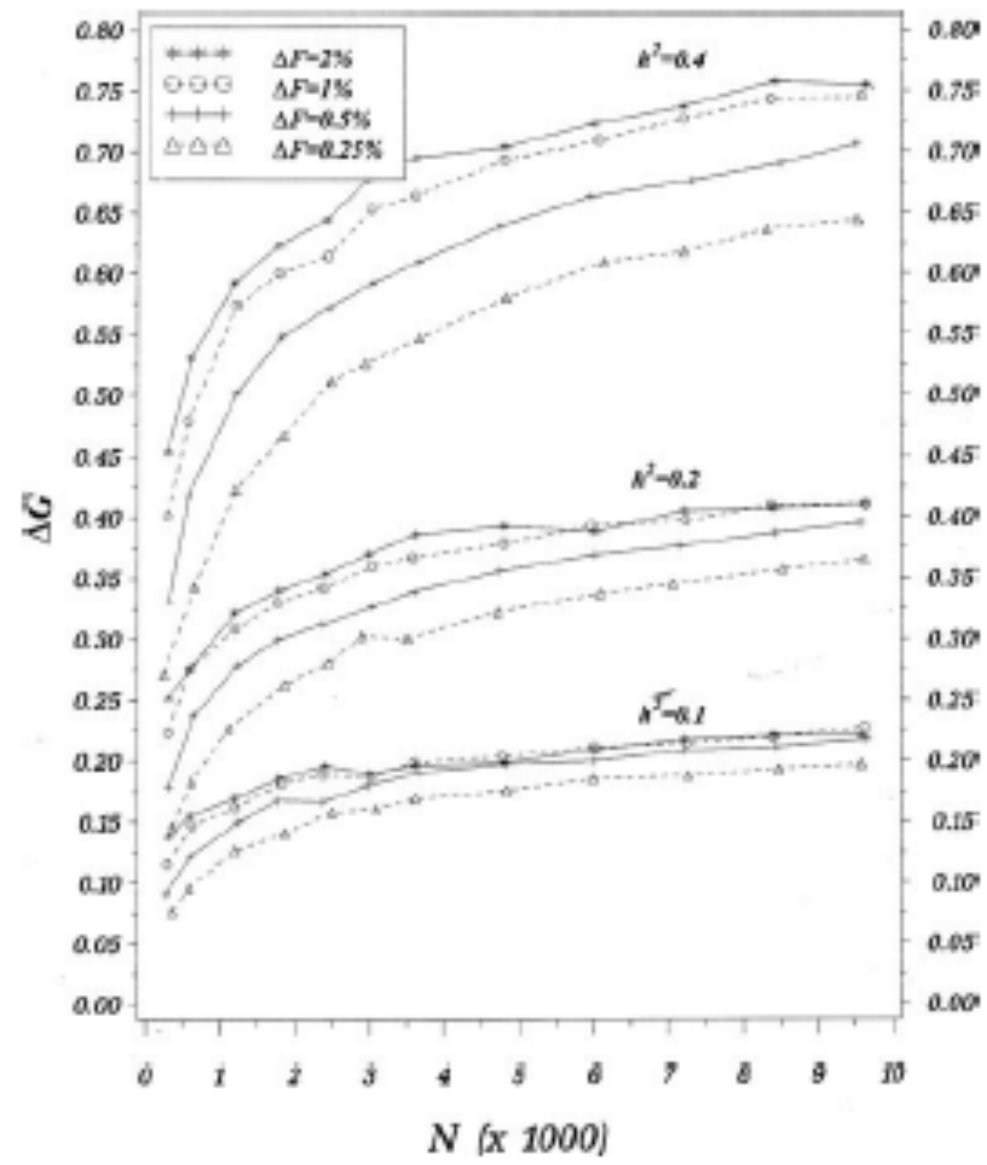
Side Effects in Fish Breeding Practices

- Breeding Programs Applying Individual Selection
- Advanced Breeding Programs (Mating & Hatching, Tagging, Recording During Grow-Out, Harvest and Pre-selection of Broodstock at Breeding Stations, Final Selection of Broodstock, Genetic Markers for Parentage Assignment)
- Test Stations
- Production of Special Lines
- Dissemination of Genetic Gains (Direct Dissemination from Nucleus, Dissemination from Multipliers)
- Breeding Programs for New Species









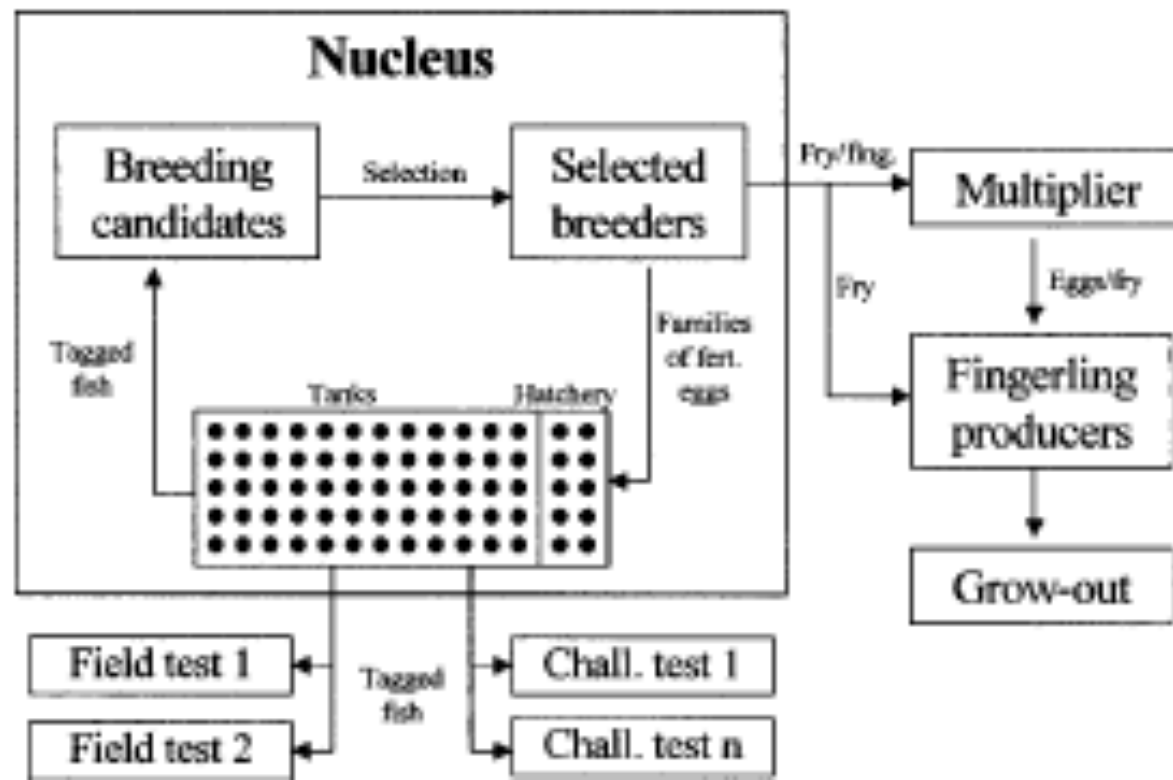


Fig. 12.3 The main elements of a full-scale breeding program in fish. Reproduced from Gjerde (2005b) by permission of Springer



Fig. 12.4 Systems for separate rearing of fry from different families until tagging size. (A) tanks for salmon (photo Frode Nerland), (B) ponds for carp (photo Bjarne Gjerde), (C) tanks for shrimp (photo Morten Rye) and (D) hapas for tilapia (photo Morten Rye)

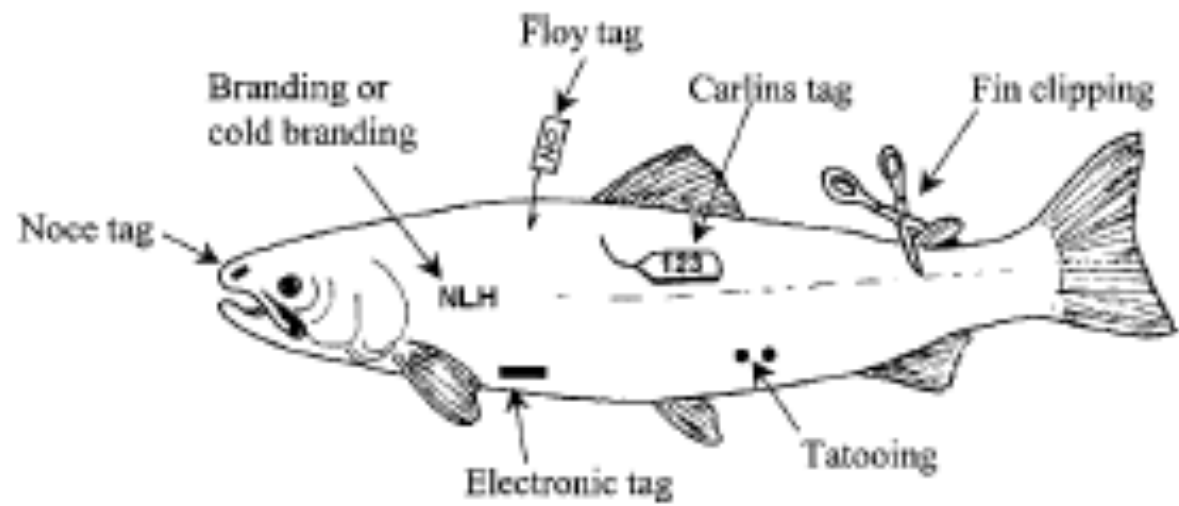


Fig. 12.5 Tags used to identify fish. Reproduced from Gjedrem (2005) by permission of Springer

Reference

- Gjedrem, T., & Baranski, M. (2010). *Selective breeding in aquaculture: an introduction* (Vol. 10). Springer Science & Business Media.