

*Xiphophorus maculatus*, XSrAr



Female



Male

Strain code: XSrAr

Phenotypes scored: Striped side (Sr), spotted side (Sp), anal red (Ar), shoulder spot (ss) and dot (D).

Introduction:

The Jp163A stock of *X. maculatus* maintained at the XGSC in San Marcos produced a cross over female in 1999 who expressed the male phenotype of striped side and anal red (SrAr). This female was mated to create a new strain with the SrAr genes linked to the X-chromosome. This stock is now perpetuated by crossing to the Jp163B stock.

Sex determination / sexing:

The chromosomal sex-determination mechanism is XX / XY. XSrAr fish are sexed at 8 weeks of age. Fish reach sexual maturity at about four months of age.

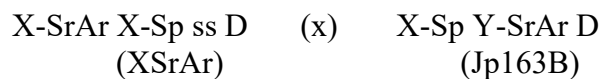
Scoring:

Both males and females in this stock are all scored for Sr, Ar, Sp, ss and D.

Maintenance:

The XSrAr stock is maintained by crossing either a male or female XSrAr fish with a Jp163B fish of the opposite sex. If an XSrAr female is crossed with a Jp163B male, then the resulting offspring expressing the XSrAr trait will be both male and female. If a male carrying the X-linked SrAr pattern is mated to a Jp163B female, then all of the female offspring will carry the XSrAr pattern while no males will.

A minimum of two matings are set up as soon as mature XSrAr fish and Jp163B fish are available to maintain the next generation:



or

X-Sp X-Sp ss D (x) X-SrAr Y-SrAr D .  
(Jp163B) (XSrAr)

One half of the resulting progeny will be segregants that are not required to maintain the stock. These animals can be discarded upon scoring.

Stock source:

XGSC, the Texas State University – San Marcos, 10/19/99.